MICHIGAN DEPARTMENT OF TRANSPORTATION

2016-2020 FIVE-YEAR TRANSPORTATION PROGRAM

Preliminary Draft: (Subject to Change) December 10, 2015

MDOT
Michigan Department of Transportation

Dear Reader:

I present to you the 2016-2020 Five-Year Transportation Program, a detailed accounting of the Michigan Department of Transportation's (MDOT) stewardship of the highway, bridge, public transit, rail, aviation, marine, and nonmotorized programs. This transportation program represents $9.5 billion in multi-modal transportation investments over the next five-year time frame. MDOT is determined to provide the highest quality integrated transportation services for economic benefit and improved quality of life in the safest and most efficient way possible.

On Nov. 10, 2015, Gov. Rick Snyder signed into law a new transportation package estimated to raise $1.2 billion for transportation through registration fee increases, motor fuel tax increases, and budgetary shifts in the General Fund. The full $1.2 billion in funding would not be realized until after 2021, when shifts from the General Fund are planned to take effect. These funds will represent one of the largest increases in transportation revenues in recent years. State gasoline and diesel taxes and registration fees have not been altered since 1997. Following law established in Act 51 of 1951, MDOT will receive about 39 percent of these funds.

It is our responsibility at MDOT to provide the greatest return on investment to Michigan's taxpayers and businesses. In order to accomplish this, MDOT annually updates its Five-Year Transportation Program, which provides information on multi-modal revenues available, expected investments, performance measures, and a list of planned road and bridge projects. Due to the relative newness of the additional state transportation revenues, this Five-Year Program will provide a general overview of information on the law on page 15. Projects will be added in the next Five-Year Program.

MDOT consistently works to deliver the program in the most effective and efficient way possible. The department is always striving to be better, faster, cheaper, safer, and smarter. Read more about MDOT efficiencies on the department's website at www.michigan.gov/roadfunding.

Thank you for your interest in the Five-Year Transportation Program.

Sincerely,

Kirk T. Steudle
Director

Dearborn Intermodal Passenger Rail Station

TABLE OF CONTENTS

MOVING MICHIGAN TRANSPORTATION FORWARD 5

Moving Goods and People 5

FIVE-YEAR TRANSPORTATION PROGRAM PROCESS 13

TRANSPORTATION FUNDING AND NEEDS 15

After Many Years, State Revenue Success 15
Additional Transportation Revenues to the State Trunkline Fund 16
Ramping Up 17

REVENUE ASSUMPTIONS AND INVESTMENT STRATEGIES (OVERVIEW) 19

Highway Program Revenue Assumptions 19
Highway Program Investment Strategy 20
Multi-Modal Programs 22
Public Transportation Revenue Assumptions (Bus, Rail, Marine, Port) 23
Aviation Revenue Assumptions 25
Public Transportation Investment Strategy 26
Aviation Investments 28

PERFORMANCE MEASUREMENT AND SYSTEM CONDITION 31

MDOT Performance Measurement 31
Highway Pavement Condition Goal 31
Bridge Condition Goal 32
Safety Goals 34
Multi-Modal Performance Measures 34
Aviation Performance Measures 39

TRANSPORTATION FUNDING GENERATES MICHIGAN JOBS 41

Highway Economic Impacts 41
Public Transportation Benefits 42
Aviation Program Benefits 43

ROAD AND BRIDGE PROJECT LISTS 44

Regional Service Areas 44
- Bay Region 46
- Grand Region 48
- Metro Region 50
- North Region 54
- Southwest Region 55
- Superior Region 57
- University Region 59

Salt water freighter going under the Mackinac Bridge, Straits of Mackinac

Moving Michigan Transportation Forward

Moving Goods and People

Michigan's global economy requires a safe and efficient transportation network to move people and goods. The network includes a variety of transportation modes: aviation, rail, marine, highways, transit and pathways for bicyclists and pedestrians. The Michigan Department of Transportation (MDOT) is working to improve the state's portion of the global transportation network to further bolster Michigan's position as a major player in the world economy. This effort aligns with Gov. Rick Snyder's strategy to reinvent Michigan by stimulating economic growth and job creation.

Providing more transportation options is a high priority for MDOT. Increased connectivity between modes provides more choices and a more effective transportation network. Technological innovations for more efficient transportation connections is also a key part of transportation improvements in the future. Recurring traffic congestion adds significant delay to the traveling public and commercial traffic. This congestion and delay is costly to individuals and businesses in terms of lost time/productivity, accidents, and vehicle operating costs, as well as being detrimental to the environment. Operational projects can have significant improvements while typically requiring much less money to build. Some of these innovations include installation of dynamic signs, signals, and cameras working together to form a more intelligent transportation system, with lower construction costs.

MDOT continues to partner with Amtrak on the *Wolverine, Blue Water* and *Pere Marquette* passenger rail lines that connect to 22 Michigan communities and Amtrak's national network. Nearly 750,000 passengers traveled on Amtrak trains in Michigan in fiscal year (FY) 2015. MDOT continues its work to update 135 miles of state-owned track that will enable Amtrak trains to travel at higher speeds between Detroit and Chicago. Other ongoing improvements will provide connections for rail, intercity bus and local transit, including installing a connection track to provide direct service between Dearborn and Detroit, completing the new facility in East Lansing, and planning for a new intermodal facility in Ann Arbor.

Many people rely on buses for transportation. MDOT worked with 119 public transit providers across the state that served more than 90 million passengers in 2014. To move people more quickly, the state's first bus rapid transit (BRT) line, the Silver Line in Grand Rapids, began providing service, and other lines are under development in Grand Rapids and the Lansing-East Lansing area. In southeast Michigan, the newly created regional transit authority (RTA) will provide regional transit services in Wayne, Oakland, Macomb and Washtenaw counties. The M-1 RAIL project along Detroit's Woodward Avenue also is progressing.

The Complete Streets initiative is aimed at making Michigan's transportation network work for everyone, with an emphasis on increasing opportunities, mobility and safety for those who travel by transit, bike or foot. This requires being sensitive to removing obstacles to travel, as well as improving safety and mobility for all users. The types of facilities that may be needed are dependent on context but may include things like better access to transit stops, bike parking, pedestrian signals and crosswalk markings, sidewalks, bike lanes, and connected networks for travel between places and within communities. MDOT has been proactively supporting this concept and already has more than 3,000 miles of wide, paved shoulders and 40 miles of marked bicycle lanes on state highways. MDOT also partners with local agencies and other state agencies to expand the shared-use path network across the state.

MDOT strives to promote and build this highly integrated transportation network that will produce efficiencies and maximize the investment of public funds. There are large infrastructure needs for all transportation modes, and funding these needs will continue to be challenging.

As Michigan continues to reinvent itself to create new jobs and economic growth, a key component remains a modern and well-maintained transportation network that moves both people and goods dependably and efficiently. Following is an update on ongoing and future projects to achieve this network for moving goods and, of course, people.

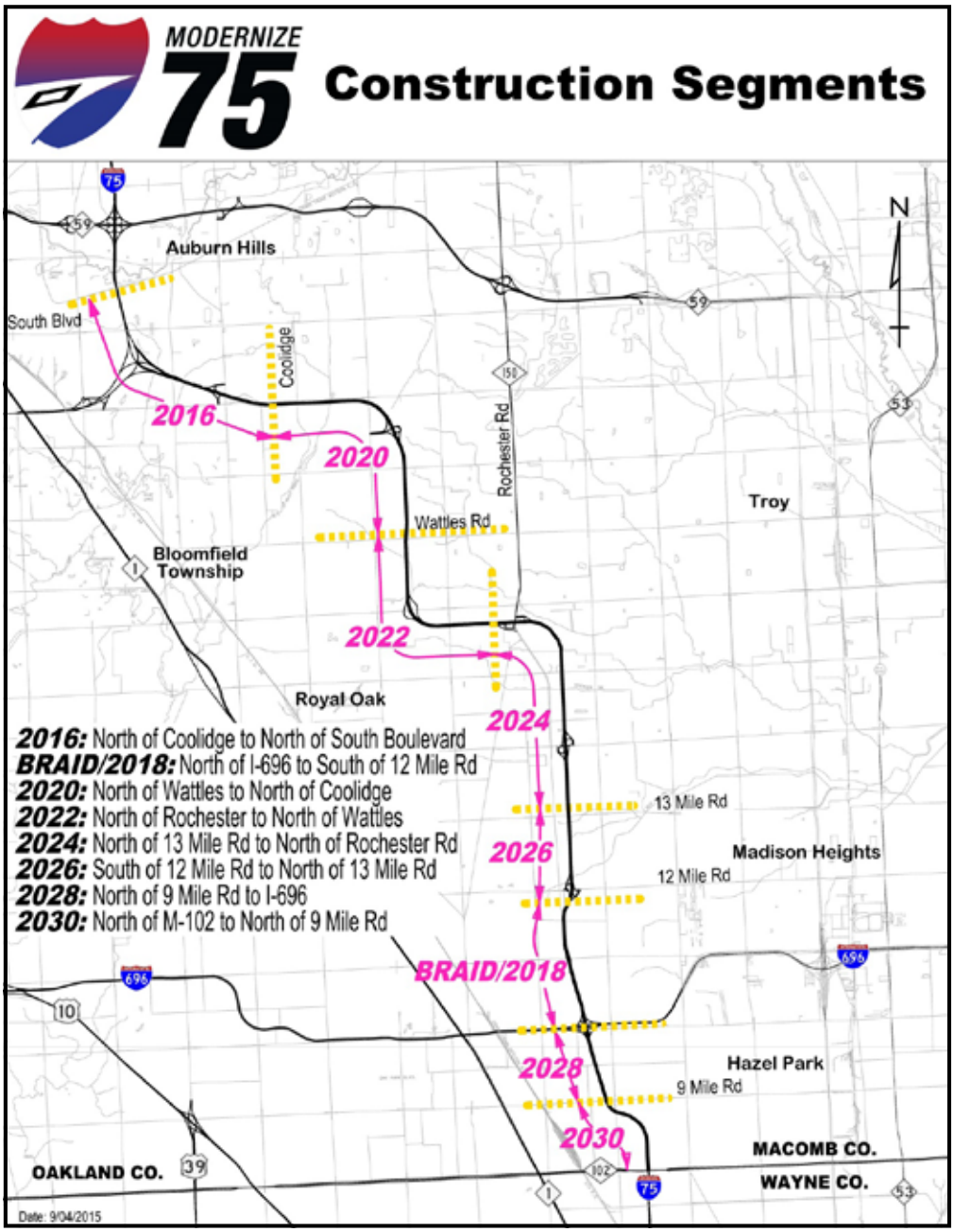
Modernizing the I-75 and I-94 Corridors

The I-75 and I-94 corridors are crucial segments of Michigan's portion of the global transportation network. I-94 carries more than 20 million tons of freight annually valued at $28.7 billion, while I-75 carries 18.5 million tons of freight annually valued at more than $26 billion. The corridors are major trade routes for goods moving across the Ambassador Bridge in Detroit and the Blue Water Bridge in Port Huron.

The I-75 modernization project focuses on a 17.7-mile section from M-102 (8 Mile Road) to north of South Boulevard, which includes 11 interchanges and 16 road crossings through six communities within Oakland County. It carries daily traffic volumes ranging from 103,000 to 178,000 vehicles per day in the project area. The project is to be delivered in eight segments, starting in 2016 with a design-build segment from north of Coolidge Road to north of South Boulevard (see graphic).

This first segment, beginning in 2016, will modernize the Square Lake Road interchange with standard right on and off ramps without impacting right of way and remain in the existing interchange footprint. This modification is to improve operations and safety at the interchange and, along the I-75 corridor specifically, reduce sideswipe and rear-end crashes and improve the merge/weave movements within this segment. It will also provide the addition of peak hour-only high-occupancy vehicle (HOV) lanes in each direction through this segment, along with reconstruction of existing pavement.

The second segment of construction scheduled will be from I-696 to south of 12 Mile Road, starting in FY 2018. The redesigned section from the I-696 on ramp to northbound I-75 over the northbound 11 Mile Road off ramp is a key to alleviating congestion



in this area. This segment will also include the addition of the peak-hour HOV lane, pavement reconstruction and drainage improvements.

The third construction segment will begin in 2020 from north of Wattles Road to north of Coolidge Road. This segment is adjacent to the 2016 segment, and will include the addition of the peak-hour HOV lane, pavement reconstruction, modernization of ramps, replacement of bridges, and drainage improvements.

The I-94 modernization project involves reconstructing 6.7 miles of I-94 from east of the I-94/I-96 interchange to east of Conner Avenue in Detroit. This section of I-94 through midtown Detroit needs to be reconstructed to improve safety, traffic flow, pavement and bridge condition, freight mobility, and local access to the freeway.

In addition to the reconstruction of the I-94 roadway, the project currently includes rebuilding 67 bridge structures and six railroad overpasses. It also includes local access improvements, the linking of east/west I-94 services drives, reconstructing and modernizing the ramps and interchanges, and the elimination of freeway left-lane exits and entrances.

Work to improve several bridges over I-94 is currently under way. The new Van Dyke Bridge at I-94 has been completed. Design has been completed on the Gratiot Avenue and Trumbull Avenue bridges. The Woodward Avenue at I-94 is currently under construction to accommodate M-1 RAIL. The Trumbull Avenue bridge will be constructed in 2016. The design of the bridges at Second Avenue, Cass Avenue, Chene Street, Brush Street, Mt. Elliott Street, Concord Avenue, Cadillac Avenue, and French Road are under way and will be constructed from 2017 to 2019. Construction of the eastern portion of the project on I-94 (Chene Street to Conner Street) is expected to begin in 2019.

Gordie Howe International Bridge

The Gordie Howe International Bridge (GHIB) project is a new freeway-to-freeway border crossing system between Detroit, Michigan, and Windsor, Ontario, that will improve the flow of international trade between the United States and Canada at the busiest border crossing between the two countries.

The project has three primary elements: a new Detroit River crossing (bridge), new state-of-the-art border inspection areas (plazas) on each side of the river for the U.S. and Canadian border services agencies, and direct connections to highway systems in each country (I-75 in the United States and Highway 401 in Canada via the new $1.4 billion Rt. Hon. Herb Gray Parkway).

Canada has agreed to finance Michigan's GHIB project components. This investment would be used for real estate purchases, utility work, construction of an I-75 interchange, and local road improvements. The agreement ensures that at least $550 million is spent in Michigan and that the funds are eligible to help match federal aid for other critical highway projects across the state that are part of MDOT's 2016-2020 Five-Year Transportation Program. The funds will be repaid from toll revenue generated after the new bridge opens.

Meeting with Canadian Officals on the Gordie Howe International Bridge

On June 15, 2012, an interlocal Crossing Agreement was signed by Gov. Rick Snyder and Canadian officials to provide a framework for a Canadian Crossing Authority, now known as the Windsor-Detroit Bridge Authority (WDBA), to finance the new crossing under the oversight of a jointly established International Authority. Design,

construction, operation and maintenance of the GHIB will be performed by a private entity through a public-private partnership (P3) agreement.

All environmental clearances in the United States and Canada have been secured. All requisite permitting, including the presidential permit and the Coast Guard navigational permit, has been obtained.

On July 30, 2014, Gov. Rick Snyder and Lisa Raitt, Canada's Minister of Transport, announced appointments to the International Authority that will oversee the construction of the GHIB, as well as oversee and approve key steps in the P3 procurement process for the new Windsor-Detroit bridge crossing. It also will monitor the compliance of the WDBA with the Crossing Agreement signed by Canada and Michigan.

Also on July 30, 2014, Minister Raitt of Transport Canada announced appointments to the board of the WDBA for the positions of president and chief executive officer, chairperson of the Board of Directors, and two directors. The WDBA, and Canada's newest Crown corporation, is managing the procurement process for the design, construction, operation and maintenance of the new bridge through a P3. On July 20, 2015, the request for qualifications for the private concessionaire was issued. The WDBA also will oversee the work of the P3, manage the concession agreement and payments, and set and collect tolls.

Almost all pre-construction activities in Canada, including land acquisition, demolition and the construction of the parkway that will connect Highway 401 to the GHIB have been completed. The WDBA has retained numerous consultants, including a general engineering consultant, who will perform important project-related functions. In 2013, the Federal Highway Administration (FHWA) authorized right-of-way and design activities for the GHIB project. MDOT has retained land acquisition and environmental consultants to assist its efforts to acquire properties located in the GHIB footprint on the U.S. side.

Implementation of this project will be complex, lengthy, and must comply with the Crossing Agreement. Procurement for the P3 concessionaire will take approximately two years, with construction taking another four to five years. The GHIB is anticipated to be open to traffic in 2020.

Detroit Intermodal Freight Terminal

Intermodal capacity in southeast Michigan is inadequate and rail freight movement is inefficient. Freight destined for Detroit sometimes passes through the city by rail and then is trucked back to Detroit from other cities, like Chicago. The Detroit Intermodal Freight Terminal (DIFT) project in southwest Detroit will help correct this situation by enhancing truck-to-rail and rail-to-truck intermodal freight operations at the Livernois-Junction Rail Yard.

The DIFT project comprises many individual projects that will be constructed over a 10- to 15-year time frame. Conceptual design of the Delray Interlocking Project is under way. The Delray Interlocking is the biggest freight railroad bottleneck in the Detroit area. The project involves track improvements that will increase freight capacity through the interlocking and reduce delays. The West Detroit project is nearing completion and will separate freight rail traffic from passenger traffic, thereby reducing passenger rail travel times to and from the Detroit area. When complete, these two projects will greatly improve rail transportation in Michigan.

Jackson County – Reynolds Field

Jackson County – Reynolds Field is the primary airport for Jackson County. It is located adjacent to I-94 and near M-60, and is primarily a general aviation airport with some cargo operations. It is the primary airport used by race teams and the public for race weeks at Michigan

International Speedway in the Irish Hills. The airport's primary runway is presently 6/24 with a 14/32 crosswind runway. The primary runway does not currently meet Federal Aviation Administration (FAA) standards for runway safety areas and runway protection zones. The limiting obstruction for meeting the standards is I-94 and the Airport Road interchange. In order to meet FAA standards, the airport is going to shift the orientation of the primary runway to 7/25. This will provide the room necessary for the runway to meet the standards. Shifting the runway will be accomplished by building a brand new runway on the new 7/25 orientation. The new runway will be built to the same length as the old runway.

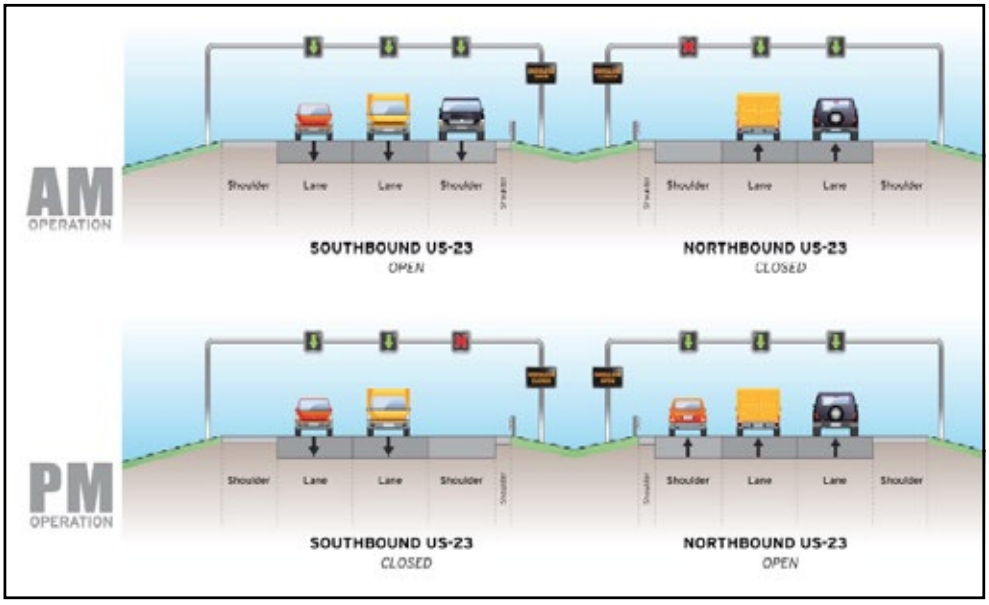
A FY 2015 airport capital improvements program (ACIP) grant of more than $9.5 million will fund the majority of the construction in 2015 and 2016, with additional federal funds being committed in FY 2016. Previous projects that supported the realignment included land acquisition, building relocation, and repair and lengthening of the crosswind runway to continue use of the airport during construction.

This project will enable the airport to continue to support the economies of the city and county of Jackson. It will provide a safer environment for larger aircraft currently using the airport and encourage even more use, which will increase the economic benefit the airport brings to the area.

US-23 Active Traffic Management (ATM)

The US-23 corridor from Brighton to Ann Arbor, M-14 to I-96, experiences high levels of delay associated with the morning and evening peak-hour traffic flows in and out of Ann Arbor. US-23 currently operates with two lanes in each direction with daily traffic levels of more than 65,000 vehicles.

With the current lack of federal and state funding, a widening of the existing US-23 corridor is not feasible. The approach chosen to help alleviate congestion is an active traffic management project consisting of the widening of shoulders to carry traffic during peak hours. The shoulder lanes will be controlled through installation of dynamic message signs, lane control signs (see graphic), and full camera coverage for incident management. The project will also consist of new freeway courtesy patrols



designed to address immobile vehicles and improve traffic flow. It will also implement crash investigation sites for motorists to safely pull off the road if there is an incident. It will also involve re-engineering of deficient ramp alignments to meet current standards and widening and reconstruction of several bridges.

This project will complement the ongoing US-23/I-96 interchange modernization and reconstruction. The first phase of the US-23 ATM will be M-14 to M-36 and will be complete in 2018. The second phase will be from I-96 to M-36; that phase currently lacks funding and is not scheduled within the Five-Year Program time frame.

M-1 RAIL Streetcar

Working with the state and community partners, M-1 RAIL – a 501c3 nonprofit – is developing a 3.3-mile, 11-station light rail/streetcar system along Woodward Avenue that will become the centerpiece for economic development and future connectivity in the Detroit region. The project is an unprecedented P3, funded by $110 million in private philanthropic investments, $10 million from MDOT, and $25 million in Federal Transit Authority (FTA) funds.

Construction is proceeding on schedule and is estimated to cost $135 million to $145 million. MDOT's investment in M-1 RAIL includes technical assistance and coordinating design and engineering with the department's planned reconstruction of Woodward Avenue from Chandler Street to Sibley Street. Streetcar operations are expected to begin in spring 2017.

Bus Rapid Transit (BRT)

The Silver Line connects Grand Rapids, Kentwood and Wyoming, mainly servicing the Division Avenue corridor with 33 stations along 9.6 miles. It is operated by the Interurban Transit Partnership, also known as the "The Rapid," which operates transit services in Grand Rapids and five adjacent communities.

The project is Michigan's first BRT line. The Silver Line operates as an express service, with minimal stops and traffic signal priority. It coordinates with local and intercity buses at the Rapid Central Station. Electronic signs in shelters provide riders with real-time information. Traffic signals hold green so that the BRT can move through the signal if the light is changing. The Rapid has already begun planning their second BRT line, the Laker Line, to enhance the connection between Grand Valley State University's Allendale campus and downtown Grand Rapids.

The Capital Area Transportation Authority (CATA) in the Lansing area is planning to build an 8.5-mile BRT line from the State Capitol in downtown Lansing, linking Michigan State University (MSU) and downtown East Lansing to Meridian Mall in Meridian Township. The project would replace CATA's highest ridership line and would include 28 stations, park and ride spaces, off-board fare collection, transit signal priority, and the procurement of 17 new articulated buses. CATA is requesting funding in the president's FY 2017 federal budget for this project.

Regional Transportational Authority (RTA)

An RTA was established for southeast Michigan, via Public Act 387 of 2012. The RTA comprises Wayne, Oakland, Macomb and Washtenaw counties. It is governed by a 10-member board with two representatives from each of the participating counties, one representative from the city of Detroit, and one non-voting member appointed by the governor who acts as chairperson. The RTA is charged with coordinating public transit services in the four counties, including developing a single master transit plan and coordinating the operating and capital plans of all transportation agencies and authorities in the southeast Michigan region.

During this Five-Year Program period, the RTA will complete their regional transit plan and begin implementing some elements, including regional funding initiatives and selecting service options for major corridors based on alternative analysis recommendations. Environmental work on the RTA's Woodward Avenue BRT project has begun and is ongoing. The alternatives analysis for Woodward Avenue has led to the selection of a Locally Preferred Alternative (LPA) -- BRT along the 27-mile corridor that will operate within the existing right of way, servicing 26 stations primarily on Woodward Avenue through 11 communities in Wayne and Oakland counties. Environmental work is proceeding. Alternatives analyses for the Michigan Avenue and Gratiot Avenue corridors began in 2015. The two studies will evaluate alternatives for reliable, higher-quality transit between Detroit and Mt. Clemens, including the portion of Gratiot Avenue to M-59 and between Detroit, Ann Arbor and Detroit Metropolitan Wayne County (Metro) Airport. Actual service implementation will be dependent on the ability to secure federal, state and local funding.

Bus service, downtown Detroit

Marquette Bike Tour, Superior Region

Five-Year Transportation Program Process

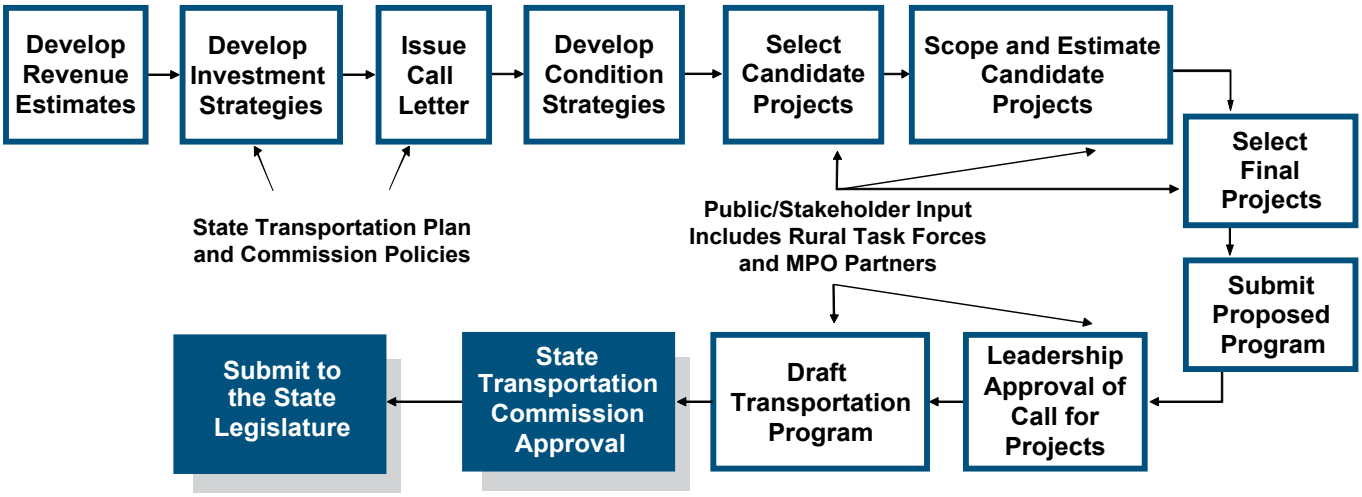
The Five-Year Transportation Program is an essential part of the governor's plan for economic growth for Michigan, and includes planned investments for highways, bridges, public transit, rail, aviation, marine, and nonmotorized transportation. Investments in all of these transportation modes provide important jobs to the Michigan economy, accessibility to urban and rural development, improved safety and efficiency of the transportation network, and enhanced quality of life for Michigan citizens.

The highway portion is a rolling program; each year, the first year is implemented, a new fifth year is added, and program/project adjustments are made to the other years. This document only pertains to that portion of the programs that MDOT delivers. It does not account for programs delivered locally with state and federal funds that are directly controlled by local agencies, such as transit agencies or county road commissions.

The Highway Program development process is a year-long, multi-stage process as shown in the following flowchart.

MDOT strives to continually involve the public and stakeholders in development of its programs and projects. The Five-Year Transportation Program process is an important opportunity to implement the vision that citizens and businesses have for Michigan. Transportation projects are often many years in the making, so it is important to engage stakeholders early so that public participation can help shape mutually desired outcomes. The Five-Year Transportation Program creates a continuous, interactive dialogue with the users of the state transportation system to anchor MDOT's project development and delivery systems. MDOT's seven region offices, 22 Transportation Service Centers (TSC) and statewide planning staff work throughout the year to share project lists with local agencies, stakeholders and the public. Information is presented at rural elected officials' meetings, TSC transportation summits, Rural Task Force meetings, and meetings with legislators. In addition to formal presentations, MDOT staff members informally discuss individual projects within the plan with economic development and tourism agencies, rural planning agencies, metropolitan planning organizations (MPOs), road commissions, local officials, tribal governments, businesses, local nonprofit groups, and the general public.

Public participation in MDOT's Five-Year Transportation Program feeds into the biennial State Transportation Improvement Program (STIP). The Five-Year Transportation Program serves as an opportunity for the public to be notified and provide local input to the upcoming STIP. The road and bridge projects proposed in the Five-Year Program are incorporated into MDOT's STIP. Michigan is required to complete this planning process to receive federal transportation funding.



Iron Ore Heritage Trail, Phase II, Ishpeming

Transportation Funding Update:

After Many Years, State Revenue Success

If you have followed the news in Michigan, you are aware of the state's challenges in providing adequate transportation funding. For many years, Michigan has had difficulty finding state and local funds to match federal aid. General Fund dollars have been used in 2013, 2014, 2015 and 2016 to assure that Michigan did not lose available federal aid.

On Nov. 10, 2015, Gov. Snyder signed into law a funding package that will provide more state transportation revenue. The nine-bill package includes registration fee increases, motor fuel tax increases and appropriations from the General Fund. Gov. Snyder said of the new law, *"It will go a long way to improve Michigan's roads and ensure a safe and efficient system of transportation essential to a stronger future. Residents and visitors alike deserve much better than what we drive on today. This targeted, ongoing investment will help preserve and fix our infrastructure now and in the future, which is fundamental to continuing and accelerating our economic comeback."*

The package will generate $1.2 billion for transportation when it takes full effect in FY 2021. Ninety-five percent of the new revenue will be distributed through the Act 51 formula. Public Act 51 of 1951 (Act 51) mandates how transportation funds are distributed and spent between MDOT and local entities.

The funds collected from state fuel tax and vehicle registration revenues are deposited into the Michigan Transportation Fund (MTF), the distribution fund for transportation revenues. MDOT receives approximately 39 percent of this fund (known as the State Trunkline Fund, or STF), 83 county road agencies receive 39 percent, 515 cities and villiages receive about 22 percent. About 8 percent of the fuel and vehicle registration revenues go into the Comprehensive Transportation Fund (CTF) for transit and rail. These funds come "off the top" prior to being applied to the Act 51 formula.

The gasoline tax will be increased from 18.7 to 26.3 cents per gallon on Jan. 1, 2017, and the diesel fuel tax will increase from 15.0 to 26.3 cents per gallon. The motor fuel tax will be applied to natural gas (CNG) as well. Fuel tax rates will be tied to inflation beginning in 2022 to remedy the decline in purchasing power of the fuel tax.

Gov. Rick Synder signs State Transportation Revenue Package.

Additional Transportation Revenues to the State Trunkline Fund (STF)

Millions	FY 2017	FY 2018	FY 2019	FY 2020
Additional Fuel and Registration Revenue	$154	$204	$205	$206
Additional General Fund	$0	$0	$59	$127
Additional funds for STF Debt Service	$7	$7	$7	$7
STF Revenue Package Total	$161	$211	$271	$341
State Funds Needed to Match Federal Aid	-$103	-$105	-$108	-$110
Available for Trunkline Program	$58	$106	$163	$231

Registration fees for most cars and trucks will increase by 20 percent on Jan. 1, 2017. New electric car fees of $100 per year, and $30 for plug-in hybrid cars, will equalize road-user fees for vehicles that use little or no taxed fuel.

The user-fee increases is expected to generate an additional $600 million per year for the Michigan Transportation Fund. The estimated portion of these user fees distributed to MDOT is listed on the first line of the table above.

Starting Oct. 1, 2019, General Fund revenues will be appropriated for roads, increasing from $150 million to $600 million over three years, until 2021.These revenues will be distributed to road agencies only, not the CTF, under the Act 51 formula. Funds estimated to go to MDOT are presented on the second line of the table above.

Minor changes were also made to Act 51, appropriating the Michigan Transportation Fund an additional $7 million per year is to be used for state transportation debt service. A new $3 million per year program awards money to local agencies for railroad crossing road surfaces.

Before MDOT can add any additional projects, the necessary state funds need to be set aside in order to match federal aid. Without these additional funds, the Five-Year Transportation Program presented in this document would not be delivered.

One of the most positive outcomes of the new revenue package is the added benefit created from more long-term funding stability in the Five-Year Transportation Program. Stability will allow for adequate planning for large-scale transportation improvements that can take many years to implement.

Additional funds estimated for 2017 to 2020 available for the Highway Program are reflected in the bottom line of the table above.

The CTF, which by law funds transit and rail projects in Michigan, will also receive a boost. This fund has also had inadequate state revenues to maintain services, let alone provide support for any expansion. The increases to the CTF will rise from $44 million in FY 2017 to $59 million per year in FY 2020.

Ramping Up

In the coming months, MDOT will review the performance goals for the major program categories - preservation of roads and bridges. Practically speaking, MDOT needs to reassess the selection and flow of projects given the new funding to assure we are using funds most efficiently. Therefore, additional projects from the projected additional funding will not be committed until the FY 2017-2021 Five-Year Transportation Program. The next five year program will more thoroughly address how the new CTF funds will be allocated and utilized.

This time frame also works well as part of a redesign of the Five-Year Transportation Program. MDOT is moving up the 2017-2021 release of the Five-Year Transportation Program to better align with local partners creating transportation improvement programs and the State Transportation Improvement Program. The draft FY 2017-2021 Five-Year Transportation Program document will be released to the public for comment in July 2016, instead of the historical December release. The next version of the plan will feature revised project lists to capture the funding to be added beginning in January 2017.

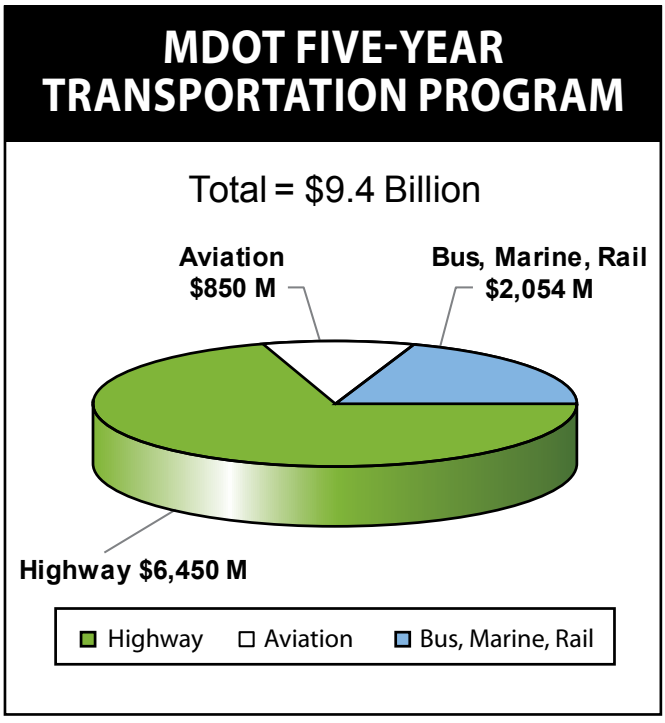
Construction work on the I-75 and University Drive interchange

I-696 pedestrian plaza, Oakland County, Detroit

Revenue Assumptions and Investment Strategies Overview

Enhancing economic development by preserving and maintaining a safe transportation system remains MDOT's highest priority. This Five-Year Transportation Program invests nearly $9.4 billion in MDOT's transportation system. This includes investments in the Highway, Aviation, Bus, Rail, and Marine programs. A total of $6.5 billion (including routine maintenance) will be invested in the 2016-2020 Highway Program. Over these five years, $850 million will be invested in the Aviation Program and $2 billion will be invested in Bus, Rail, and Marine/Port programs (see the pie chart below).

The Highway Program focuses on system preservation through the repair and maintenance of Michigan's roads and bridges. The majority of the Multi-Modal Program concentrates on system preservation as well. Investments in Michigan's transportation system focus on a comprehensive safety program and increased emphasis on mobility and expanded work zone safety efforts. The Five-Year Transportation Program documents that MDOT's investments in the state transportation system directly benefit Michigan citizens by providing them with expanded options, mobility, and access.



Highway Program Revenue Assumptions

On Dec. 4, 2015, the Fixing America's Surface Transportation Act, or the FAST Act, was signed into law. The legislation replaces the Moving Ahead for Progress in the 21st Century Act (MAP-21), which expired on Sept. 30, 2014, and had been extended on a short-term basis five times by Congress. The FAST Act authorizes the investment of $305 billion in federal funding in the nation's surface transportation system during the next five years, through FY 2020. The legislation breaks the cycle of short-term funding authorizations that have characterized the federal program for the past 10 years and, in covering nearly five full fiscal years, represents the longest surface transportation authorization bill enacted since 1998.

The FAST Act builds on the reforms included in MAP-21, which was put in place only three years ago. MAP-21 directed agencies to think more about freight by interacting more closely with stakeholders and engaging in specific freight planning efforts. The FAST Act continues this focus on freight by creating two new programs to better target investments to projects that promote efficient movement of freight. MAP-21 also transformed federal highway and transit programs through the establishment of a performance-based approach to decision-making. While this framework has yet to be implemented, the FAST Act supports this initiative by funding efforts to collect and manage data for performance analysis, and to improve capacity of transportation agencies to better link investments with outcomes.

Reliance on non-transportation revenue to support investments in surface transportation is continued in the FAST Act. It transfers $70 billion from the federal General Fund into the federal Highway Trust Fund (HTF) to ensure that all the investments in highways and transit during the next five fiscal years are fully paid for. This brings the total amount of non-transportation revenue that has supported investments from the HTF during the past seven years to nearly $145 billion.

Due to the relative newness of the FAST legislation, the FY 2016-2020 federal-aid revenue estimate is based on MAP-21 estimates of federal funding available for Michigan. Federal funding is assumed to remain flat for the entire Five-Year Program time period. It is projected that $3.6 billion in federal funding will be made available to the Highway Program for this Five-Year Transportation Program.

The intent of Act 51 in regard to federal highway aid is to distribute approximately 25 percent of federal aid to local jurisdictions for use on federal-aid-eligible local roads. The remainder is to be used by MDOT.

The state revenue estimate is based on MDOT's share of the MTF, as estimated by consensus with the Department of Treasury, Economic and Revenue Forecasting Division. Future state revenue is forecast using a long-range forecasting model managed by MDOT's Statewide Transportation Planning Division. It is estimated that $3 billion in state revenue will be available for MDOT's Highway Program. This includes $113 million in one-time General Fund redirection to the STF in FY 2016 in order to match all available federal aid. It also includes $101.8 million, which also is a portion of a one-time redirection from the General Fund. Additional revenue was added to the overall revenue available, based on the new state revenue package.

Highway Program Investment Strategy

The State Transportation Commission (STC) establishes policies, goals, and objectives that provide the basis for highway funding allocation decisions. MDOT developed an investment strategy process to accomplish the effective use of financial resources on the state trunkline Highway Program. The process allocates an investment amount to various program categories (bridge, road, safety, etc.) annually, based on program improvement strategy, goals, and statewide priorities. It sets the level of funding to achieve highway improvement priorities and provides a tool to constrain the overall statewide program against available revenues.

MDOT has a pavement preservation formula that allocates funding to its seven regions. The formula weighs four overall factors: pavement condition, eligible lane miles for pavement reconstruction and repair work, usage (average daily traffic volumes), and regional cost. These factors form the basis for how pavement preservation funds are distributed to each region. The formula is updated annually with current pavement condition, traffic, cost and eligible lane miles.

Bridge funding is distributed to MDOT regions using the bridge preservation allocation formula. It uses the deck area of bridges in each National Bridge Inventory condition to allocate funds to each MDOT region. Funding is split into investment targets for replacement, repair, and preventive maintenance work.

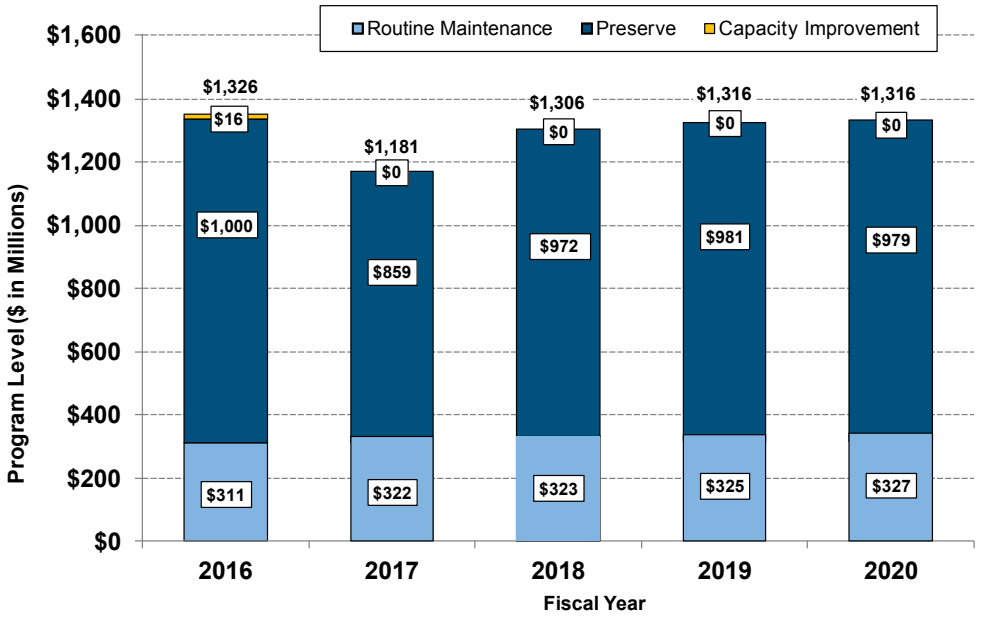
The following table provides the Highway Program investments strategy for FY 2016-2020.

Highway Investment Program FY 2016-2020

	FY 2016-2020 Annual Average (millions)	Five-Year Total (millions)
REPAIR AND REBUILD ROADS AND BRIDGES		
REPAIR AND REBUILD ROADS		
Repair and Reconstruction	$248	$1,238
Capital Preventive Maintenance	$100	$499
Operations	$24	$119
Freeway Lighting	$5	$31
Trunkline Modernization	$168	$840
TOTAL - *Repair and Rebuild Roads*	$545	$2,727
REPAIR AND REBUILD BRIDGES		
Bridge Replacement	$50	$254
Bridge Preservation	$60	$299
Big Bridges	$38	$190
Special Needs	$9	$43
Blue Water Bridge-Appropriated Capital Outlay Projects	$6	$28
TOTAL - *Bridges*	$163	$814
Routine Maintenance	$322	$1,609
Additional Preservation from State Revenue Package*	$91	$457
TOTAL - *REPAIR AND REBUILD ROADS AND BRIDGES*	$1,121	$5,607
CAPACITY IMPROVEMENT	$3	$16
SAFETY AND SYSTEM OPERATIONS	$119	$595
TRANSPORTATION ALTERNATIVES	$12	$58
ROADSIDE FACILITIES	$3	$13
WORKFORCE DEVELOPMENT	$7	$35
NON-FEDERALLY FUNDED PROGRAMS	$25	$126
TOTAL - FIVE-YEAR TRUNKLINE PROGRAM	$1,290	$6,450

**Not assigned to individual program categories at this time.*

HIGHWAY PROGRAM INVESTMENT BY PROGRAM CATEGORY - FY 2016-2020
Includes State Transportation Revenue Package



The graph illustrates the annual Highway Program investments by program categories over the five-year time frame. The annual investments range from a high of $1.4 billion in FY 2018 to a low of $1.2 billion in FY 2017.

The FY 2016-2020 Five-Year Transportation Program estimates that investments for the Highway Program total approximately $6.5 billion. This total reflects investments for pre-construction (scoping, design, environmental clearance and right-of-way acquisition) and construction activities. This Highway Program investment will provide Michigan travelers with approximately 310 miles of improved roads per year over the next five years, and repairs to 82 bridges per year. MDOT also will manage its road system by extending the life of approximately 1,130 miles of pavement each year through the Capital Preventive Maintenance program (this estimate does not include any additional miles due to the revenue package). The Trunkline Modernization category includes design and construction for portions of the I-75 corridor in Oakland County, and design and construction for portions of the I-94 corridor in Detroit. This document includes a project listing by region for projects in major work categories. These projects also can be viewed on a state and regional maps on the MDOT website at *http://mdotnetpublic.state.mi.us/fyp/*.

Multi-Modal Programs

MDOT's FY 2016-2020 Multi-Modal Program includes two main areas: public transportation and aviation. Public transportation programs are administered by two offices. The Office of Passenger Transportation (OPT) administers the Bus and Marine programs while the Office of Rail administers the Rail and Port programs. The Office of Aeronautics administers the Aviation Program. These offices provide capital and operating assistance, technical support, and safety oversight.

The Multi-Modal Program focuses largely on continued safe and secure operation of the existing transportation system through routine maintenance, capital replacement/repair, and preservation of existing service levels. MDOT's approach to the Multi-Modal Program differs significantly from the Highway Program for two main reasons. First, the majority of the infrastructure is owned, managed, and operated by entities other than MDOT. Second, state and federal funding that MDOT programs for these modes is only a portion of the total investments made.

The multi-modal portion of the Five-Year Program contains overview information where the modes or programs have similar conditions, and mode-specific information when appropriate due to unique considerations or funding issues.

Public Transportation Revenue Assumptions (Bus, Rail, Marine, Port)

Public Transportation Revenue Issues

The Public Transportation Program receives most of its state funding through the Comprehensive Transportation Fund (CTF). In FY 2016, approximately two-thirds of CTF revenues come from the MTF, which is funded by the state motor fuel tax and vehicle registration fees. Therefore, revenue declines that affect the MTF also are felt by the CTF. The CTF also receives revenues from auto-related sales tax revenue, which varies from year to year. Neither the distribution of the MTF to the CTF nor sales taxes to the CTF are constitutionally protected. Appropriation levels vary from year to year. In recent years, including FY 2016, the Public Transportation Program has also been appropriated General Fund because the CTF revenue was insufficient to match federal funds and support a continuation level of services.

The new Transportation Revenue Package changes the revenue distribution to the CTF beginning in FY 2017. The CTF will receive a portion of the new revenue generated for the MTF in addition to the original FY 2017 CTF revenue estimate. The State Budget Office (SBO) has estimated additional MTF revenue for the CTF beginning in FY 2017.

The CTF revenue estimates for this Five-Year Program are based on the FY 2016 CTF appropriation in Public Act 84 of 2015, the Michigan Department of Treasury's May 2015 CTF revenue estimate for FY 2017, and the additional MTF revenue from the transportation funding package as estimated by SBO. Based on these revenue estimates, CTF funding available for appropriation in FY 2017 is $286.6 million, approximately $43.9 million greater than appropriated in FY 2016. However, in FY 2016, there was also $25 million of General Fund appropriated for the Public Transportation Program for a total of $276.7 in state funding. The estimated FY 2017 CTF money is $18.9 million more than the CTF plus General Fund in FY 2016. This level of funding, going forward, will certainly help support the Public Transportation Program's growing needs. Unfortunately, it is not sufficient to maintain the current level of service for all CTF-funded programs, and match the federal transportation funds the state expects to receive during this five-year period.

Office of Passenger Transportation (OPT) Program Development

In many ways, development of a Five-Year Program for OPT's Bus and Marine programs is not feasible. The programs cover local transit (bus), marine, and intercity bus, and the vast majority of the projects are selected at the local level, not by MDOT. MDOT makes funding decisions at the "program level." For the most part, these programs are either prescribed by Act 51, restricted due to funding levels, or a response to federal funds awarded to MDOT or local agencies each year. There is very little opportunity for the programming of funds once statutory obligations are met.

It is rare that MDOT makes a multi-year funding commitment from the CTF, other than continuation of the annual programs mandated in Act 51. Therefore, what is presented in this document is MDOT's annual program for FY 2016, the estimated funding available for the remaining years of the program, and a description of the factors anticipated to influence both the funding availability and the annual decisions that will be made over the life of this program.

Local Transit Revenue Assumptions

The programs in this category provide funding for operating and capital support, training, and special projects to local bus operators that service the general public. Assistance also is provided to support transportation services focused on the needs of senior citizens and persons with disabilities, and help meet the transportation-to-work needs of low income individuals. A total of 119 transit providers (81 local agencies and 38 specialized services agencies) in all 83 Michigan counties are provided support under these programs.

Federal funds for these programs include formula and discretionary funds awarded to MDOT and its subrecipients that are generally rural transit agencies. In the past, these discretionary funds were awarded via congressional earmarks and were more common; however,

that practice has been replaced by competitive grant programs through the Federal Transit Administration (FTA) and, on occasion, the Federal Highway Administration (FHWA), and are less frequent and smaller total dollar amounts than congressional earmarks. Although nationwide transit funding levels remain about the same, Michigan's Transit Program will receive less federal funding under MAP-21 due to the uncertainty of being awarded nationally competitive grants. Unless transit systems are able to raise local funds to compensate for declining available federal revenues, the condition of the transit infrastructure will decline.

It is important to note that more than 80 percent of FTA revenues for local bus systems go directly to transit agencies and are not reflected in MDOT's program. Therefore, when state funds are not available to match federal funds, the full impact is not detailed in this Five-Year Program document. The impact is largely on local programs that are dependent on state revenues to access federal funds. The magnitude and direct link between a shortfall in state revenues and loss of federal funds may not be reflected in this program, but it must be clearly understood that the impacts are significant.

Also part of local transit is the MichiVan Program. MDOT contracts with private service providers to help organize and sustain vanpools as a commuting alternative. Federal funds for MichiVan come from FHWA's Congestion Mitigation and Air Quality (CMAQ) Program and are programmed under the Highway Program. A small amount of CTF also is used each year for MichiVan.

Marine Revenue Assumptions

Under MAP-21, the FHWA Ferryboat Discretionary Program, which in the past supported major capital improvements for Michigan's rural ferry systems, was replaced with a formula program. While the new FHWA formula program provides a guaranteed annual allotment to eligible ferry systems in Michigan, the annual funding level for each system is small and inadequate for major capital improvements, such as replacing ferry vessels, expanding terminals or docks, or upgrades. MDOT is working on determining the most effective way to utilize these limited funds to ensure maximum benefit. The federal funds that will come to Michigan under the FHWA program are not shown in the Bus and Marine programs, but are included in the highway portion of this Five-Year Program.

A new FTA ferryboat discretionary program was added under MAP-21; however, the FTA program is aimed at urban systems only and will not meet the needs of Michigan's two rural systems. It is not reflected in this Five-Year Program since there is no way to ascertain if any Michigan system will receive funding under the program.

Intercity Bus Revenue Assumptions

The Intercity Bus Program provides both operating and capital assistance for the intercity network in the state, with a goal to allow residents access to the national transportation network. The Terminal Development Program pays for small projects using only state funds, while the Intercity Services Program is a combination of federal and state funds used for operating expenses and bus purchases in the essential intercity network. Under MAP-21, federal funds should remain at about the same level for the duration of this Five-Year Program. MDOT anticipates state funds to be adequate to support the continuation of the current level of service.

Office of Rail Program Development

Like OPT, the Office of Rail cannot develop a comprehensive Five-Year Program. Much of the Office of Rail's ongoing expenditures will be for operating support, which is calculated annually. Projects funded under most other Office of Rail programs are developed annually as well; many are application-based. Therefore, the Office of Rail scales its efforts to fit available funding. All rail programs are included as potential investments but projected funding ultimately may not be sufficient to maintain them. This Five-Year Program also includes projects that have been funded by prior federal grants and programs.

Rail Revenue Assumptions

MDOT's rail programs are funded by dedicated federal-aid, MTF, and CTF dollars. Dedicated federal-aid and MTF money support motorist safety at railroad crossings on local roads. CTF revenue supports the other passenger and freight rail activities, and is projected to cover at least the activities mandated by federal statute or obligated by existing contracts in this Five-Year Program. MDOT will continue to compete for federal funding to assist with rail capital enhancements if/when it is made available. Federal funding generally requires a minimum of 20 percent matching funds.

NOTE: STF dollars and corresponding dedicated federal funds support a trunkline crossing program that also is invested as a part of the Rail Program, but those funds are accounted for as a part of the Highway Program.

Port Revenue Assumptions

The pass-through assistance provided to the Detroit-Wayne County Port Authority is expected to continue at FY 2016 levels over the next five years. FY 2016-appropriated revenue for ports is nearly $470,000.

Aviation Revenue Assumptions

The Federal Aviation Administration Modernization and Reform Act, signed into law in February 2012, is a four-year reauthorization providing stable and predictable funding through the end of FY 2015. Congress extended this funding legislation through March 31, 2016. Lack of state aviation revenue will continue to place an increasing burden on local communities for maintaining the airport infrastructure.

In FY 2016, federal funding for the Airport Capital Improvement Program (ACIP) is expected to remain at present levels. That authorization provided for $3.35 billion in federal funds through FY 2015 for ACIP nationwide. ACIP funding is estimated to be $95 million in FY 2016-2020.

Michigan's aviation fuel excise tax is the primary funding source for the State Aeronautics Fund (SAF). Over the last decade, aviation fuel tax revenues have continued to significantly decline. Revenues from aviation fuel have decreased from $8.62 million in 2000 to $5.06 million in 2014, and are continuing to fall. When adjusted for inflation, the projected aviation fuel tax revenues are less than half of those available in FY 1998.

Other sources of revenue include aircraft registration, airport licensing, tall structures permits, and aircraft dealer licensing. Additional revenue for FY 2016 includes a one-time $1.5 million allocation from the General Fund to match federal aid and a one-time transfer from the Transportation Economic Development Fund of $2 million. MDOT anticipates continued budget challenges for its Aeronautics Program in the five-year period due primarily to the uncertainty of state revenues.

Since 2009, certain statewide programs funded directly from SAF were suspended or reduced. Those programs include statewide pavement maintenance, statewide

paint marking, all weather access, and the Air Service Program. In the case of pavement maintenance, paint marking, and all weather programs, these projects are now done on the same cost basis as ACIP. The Air Service Program that supports the Governor's Dashboard is unfunded in FY 2016. Additional Aeronautics revenue is needed to continue this program.

In summary, aviation program revenue assumptions are:

- Federal Revenues
  - *Uncertain through 2020, but estimated at present levels.*
  - *Continued formula apportionments, congressional earmarks, and discretionary grants.*
  - *In partnership with local agencies competing for federal discretionary funds.*
- State Revenues
  - *Committed to match all available federal funding.*
  - *Excise fuel tax revenue in decline.*
  - *Increase in bond debt service.*

Public Transportation Investment Strategy

MDOT's Public Transportation Program includes local transit, intercity bus, marine passenger, the MichiVan vanpool program, port, freight rail, and passenger rail. The program provides for some combination of capital and operating assistance, technical support, safety oversight, and compliance monitoring for each of the modes. This Five-Year Transportation Program represents the continuation of a program that has been steadily reduced over a number of years. The additional CTF revenue generated by the transportation funding package replaces the continued appropriation of General Fund to help offset the shortfall of CTF funds.

The total Public Transportation Program (federal, state, local, and private funds) for FY 2016 is $386.7 million, of which $242.7 million is CTF, $25 million is General Fund and $119 million in other funding. The estimated FY 2017 program, with the additional CTF money, is $406.2 million. This breaks down to $286.6 in CTF and $119.6 in other funding.

There is an increased need for state money to match federal funds and support a continuation level of services. The additional revenue generated from the transportation funding package will help address these needs. Based on the FY 2016 program, plus an increase in CTF funding ranging from $43.9 million in FY 2017 to $58.5 million in FY 2020, the Five-Year Program would total $2.054 billion.

The investment of CTF revenues in the public transportation system is determined by the detailed requirements currently set forth in Act 51, as well as the annual appropriations process. Act 51 requires the majority of CTF revenues to be used for local transit. Based on the current structure of Act 51 and the estimated revenue, the investments called for in this Five-Year Program are focused heavily on the preservation of the existing passenger transportation system. The new revenue will make a positive difference; however, CTF funding will still not be sufficient to maintain the current level of service for all CTF-funded programs, and match the federal transportation funds the state expects to receive during this five-year period.

Local Transit Investment Strategy

State funds are combined with federal and local dollars, including farebox revenue and local millages, to support operation and maintenance of the local transit network. The state's annual investment strategy for the Local Transit Program is largely determined by detailed requirements set forth in Act 51 of 1951 for annual distribution/use of CTF revenues and the eligible uses of federal formula apportionments or competitive grant awards.

The budgeted funds for FY 2016 are sufficient for providing match for anticipated federal formula funds; however, the funds do not support a continuation level of local bus operating reimbursement, so transit agencies must use local funds to maintain their current level of service. The new transportation funding package will provide a moderate increase in the CTF, which may help maintain service levels. However, funding decisions have yet to be made as to how the increase will be used across the full range of CTF-supported programs, including intercity

passenger rail and rail freight. The increase is insufficient to support maintenance of all state and local infrastructure and services that are dependent on the CTF and also provide for growth being planned in several urban areas; therefore, strategic decisions as to what portion of the needs the new revenues will cover over the course of this Five-Year Program will have to be made in the coming months. Local transit agencies are seeking federal funds to support urban growth with projects such as CATA's Michigan Avenue/Grand River Avenue BRT, Ann Arbor-to-Detroit regional rail, the Washtenaw and Livingston Line (WALLY), and expanded transit in the new RTA service area. Awarded federal capital funds will require state or local match. Furthermore, the cost to operate these projects, if they are implemented, will impact the operating support available for all transit services.

The MichiVan Program will be maintained with state, federal, and local funds. Demand for new vanpools continues to increase as fuel prices fluctuate.

MDOT's local transit investments will focus on:

- Preservation of existing services in all 83 counties via operating assistance to local transit, intercity bus, and public marine service providers.
- Preservation and maintenance of the existing infrastructure (largely locally owned) via state investment and match to federal funds for routine vehicle replacement.
- Support of local capital strategies established by individual transit agencies via matching federal capital grants for infrastructure replacement and repairs
- Support of urban growth RTA initiatives to the extent possible.

Unfortunately, based on this model, there is no CTF anticipated in the program for urban growth with projects such as CATA's Michigan Avenue/Grand River Avenue BRT, Ann Arbor-to-Detroit regional rail, the Washtenaw and Livingston Line (WALLY), or expanded transit in the new RTA service area.

Intercity Bus Investment Strategy

MDOT will continue to use state and federal funds to contract with intercity bus carriers to provide route service that would not otherwise exist (i.e., service that would not be provided by the carrier absent a state subsidy). MDOT also will use state and/or federal funds to enhance the intercity passenger infrastructure. The Terminal Development Program is used to maintain intermodal/intercity terminals and infrastructure so the public can safely and conveniently access intercity services. There are no major construction projects planned in the next five years, so a minimal amount of funding has been requested to maintain the current facilities and pathfinder signs.

Every three years, MDOT bids out the five routes in northern Michigan that private carriers have abandoned due to lack of profitability. Based on MAP-21 and anticipated CTF funding levels, the current level of service will be maintained for the life of this Five-Year Program. This service includes a partnership with the Wisconsin Department of Transportation to co-fund two routes that benefit both states and provide meaningful connections to the national network. Vehicles used on these routes and routes in the southern portion of the state deemed essential to national connectivity also are funded with a combination of state and federal funds. The number of vehicles provided was recently reduced based on the level of service being provided.

The Intercity Program also includes regulating the commercial business activities of both intercity bus and limousine services. These activities are funded through the department's operating budget and fee collections.

Marine Passenger Investment Strategy

The four state-subsidized marine passenger systems will continue to receive operating assistance under the Local Bus Operating Assistance Program in Act 51 to preserve the service they provide. Any state marine capital funds available over the life of this program will be used for routine infrastructure maintenance and improvements to ensure the integrity of the system. As with the other passenger programs, the funding for the Marine Passenger Program is not keeping up with inflation, which makes it difficult to preserve the system and

impossible to meet increased demand. MDOT has not established any performance metrics for marine passenger infrastructure. However, with changes in how federal funds are distributed under MAP-21, deterioration of the locally owned infrastructure over the life of this Five-Year Program is possible.

Rail Investment Strategy

MDOT's rail investments will utilize state and federal funds to preserve and enhance Michigan's passenger and freight rail systems, ensure railroad crossing safety and promote economic development.

The bulk of the state and federal funds will be invested to preserve and enhance Michigan's intercity passenger rail services mandated by federal statute or existing contractual arrangements, including operating expenses on the three Michigan routes that service 22 station communities and maintenance of the state-owned track between Kalamazoo and Dearborn. This Five-Year Program will also complete federal grant projects to enhance the state-owned track between Kalamazoo and Dearborn to accommodate passenger train speeds up to 110 mph. In addition, MDOT will complete construction of a new connection track at the West Detroit junction to eliminate existing conflicts with passenger/freight congestion. The new station in East Lansing will be completed, and the planning and site selection process for a new station in Ann Arbor will be finalized.

Multi-state federal grant projects that Michigan is involved in to develop a corridor investment plan and procure intercity passenger train equipment will also be completed. MDOT is leading the multi-state effort to develop a corridor investment plan for the Chicago-Detroit/Pontiac High Speed Rail Corridor that will be completed in FY 2016. As a part of a joint procurement of $268 million in next generation train equipment for the Midwest, led by the Illinois Department of Transportation, MDOT will replace existing intercity passenger train equipment on all three Michigan services. The new equipment is expected to be delivered from FY 2016 through FY 2017.

As funding permits, state CTF dollars also will be invested in freight economic development loans and state-owned line preservation, while dedicated MTF and federal dollars will be invested in safety enhancements at railroad crossings. Specific projects will be identified annually based on available funding, but generally will include:

- Preservation of freight service on 665 miles of state-owned track through capital repairs that supports economic development.
- Low-interest loans through the Freight Economic Development Program to assist new or expanding businesses with access to the rail system.
- Crossing safety projects to reduce motorist risk at railroad crossings, including warning device enhancement and crossing elimination projects on roads under local jurisdiction. Projects on the state trunkline system are accounted for under the Highway Program.
- Crossing surface projects to improve railroad crossing condition on local roads through a new competitive grant program expected to begin in FY 2017.

MDOT also will continue to plan and support other passenger rail projects, including providing assistance to commuter and light rail in southeast Michigan.

Little rail investment is anticipated beyond intercity passenger services and crossing safety projects in FY 2016 and 2017. Additional funding may be available in FY 2018 through FY 2020 that could restore MDOT's state-owned-line freight preservation and the Freight Economic Development Program.

Port Investment Strategy

For each of the next five years, MDOT anticipates providing nearly $470,000 in legislatively appropriated funding to the Detroit-Wayne County Port Authority to assist with operating costs and marketing activities.

Aviation Investments

Airport Capital Improvement Program (ACIP)

ACIP provides funding for approximately 235 public use airports for capital improvement projects and pavement maintenance. Of the 235 eligible airports, 94 receive federal entitlement funding as part of the National Plan of Integrated Airport Systems. As the majority of Michigan's

public use airports that receive federal entitlement funds are owned and operated by local governments, projects using these funds are selected by the airports themselves, not MDOT. However, projects are ranked according to a priority system and encouraged to provide not only benefit to the airport, but the system as well.

In addition, MDOT can and does provide supplemental funding for projects and makes the decision on which projects receive these funds through the State Block Grant Program. The Federal Aviation Administration (FAA) also provides supplemental funding for projects at airports they select. All project funding decisions using supplemental dollars are selected on the basis of the Michigan Airport System Plan (MASP), as approved by the Michigan Aeronautics Commission or published FAA priorities, as appropriate. A revision to the MASP 2008 is currently under way with a scheduled completion date of January 2017.

Priorities are a significant part of the funding decisions that support the organizational mission and represent the overall vision driving the airport infrastructure investment strategy. While constrained, these include:

- Address MASP goals (asset management) by reducing system and facility deficiencies.
- Preservation of critical infrastructure, particularly pavements, navigational aids, and airspace.
- Maximize federal funds and leveraging state, local, and private funding.
- Support job growth and economic development through projects related to freight/logistics, aircraft maintenance, and other emerging opportunities.
- Support air service passengers statewide.

To the extent possible over the next five years, efforts will continue to focus on integration with other modes of transportation, addressing environmental issues, public awareness/outreach, and education.

In 2014, ACIP showed a gap between the needs identified by airports and anticipated funding of approximately $60 million per year, or $300 million over five years. Today, that gap is nearly $80 million annually, or $400 million over the five-year period. This growing shortfall is due to the increased cost of delaying and phasing projects versus being able to accomplish them in a single effort. This difference can be narrowed somewhat by discretionary funding, which is distributed by FAA on a regional basis among various states. Michigan has competed well for these funds and, given the identified needs, will continue to aggressively pursue these opportunities. Additional state and other funding options will continue to be explored to impact the shortfall.

MDOT's Multi-Modal Investment Strategy

(Subject to appropriation of state, federal and local funds)

	Annual Average	Five-Year Total
AVIATION		
Airport Improvement Program (AIP)*	$170 million	$850 million
PUBLIC TRANSPORTATION PROGRAM		
(Local Transit, Intercity Bus, Passenger Rail, Rail Freight, and Ports)**		$2.054 billion
TOTAL		**$2.904 billion**

* *Includes comprehensive program of needed investments for primary airports and general aviation airports as identified in the MDOT ACIP.*

** *Includes federal, local and sub-fund expenditure authority, which is often overstated to account for potential revenue.*

I-75/University Drive interchange construction in Auburn Hills

Performance Measurement and System Condition

MDOT Performance Measurement

Maintaining and growing Michigan's economy depends on the preservation, modernization, and efficient operation of its transportation system. To achieve the goals that have been set forth, it is necessary to benchmark and monitor the performance of the system. As a part of MAP-21, a national system for measuring performance is focusing on addressing national goals in many areas, including safety, infrastructure condition, congestion, and system reliability. A performance-driven approach to investment decisions represents a significant shift in the focus of the federal program. MAP-21 will likely lead to additional measures linked to federal funding.

MDOT formalized its approach to improving, measuring, and reporting the condition of its transportation networks with the STC's 1997 adoption of pavement condition goals. Since then, MDOT has developed performance measures to reflect a broader range of the transportation system. The following sections reflect a representative sample of the performance measures that MDOT is using to track the highway, aviation, and passenger transportation modes of travel. A broader suite of measures can be found online at ***www.michigan.gov/mdotperformance***, including the document *Driven by Excellence: A Report on Transportation Performance Measurement at MDOT.*

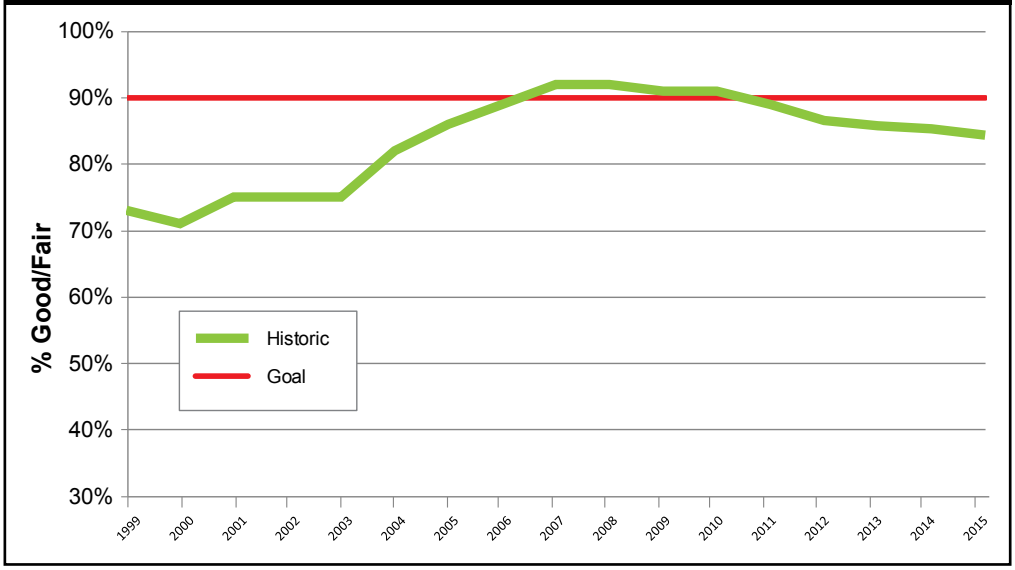
Highway Pavement Condition Goal

This section of the document only pertains to the state trunkline routes that MDOT has jurisdiction over - I, M, and US routes - which carry 53 percent of passenger traffic and 71 percent of commercial traffic in the state. These routes are important trade routes, business corridors, and keys to economic development.

MDOT continues to make program development and project selection decisions based on the pavement's remaining service life (RSL), a measure of the pavement's overall health. It is defined as the estimated remaining time in years until a pavement's most cost-effective treatment requires either reconstruction or major repair. Pavements with an RSL of two years or less are considered to be in the "poor" pavement category. MDOT uses an asset management approach of short, medium, and long-term improvements to maintain overall pavement health. Once pavements deteriorate into the "poor" category, it is more costly to bring them back into "good" condition.

The graph shows the state trunkline system condition based on RSL. MDOT was able to maintain its goal of 90 percent of pavement in good or fair condition from 2007 to 2010. Trunkline conditions were estimated to be at 84 percent good or fair in 2015.

MDOT HISTORIC PAVEMENT CONDITION



Bridge Condition Goal

The Bridge Management System (BMS) is an important part of the overall asset management process. BMS is a strategic approach to linking data, strategies, programs, and projects into a systematic process to ensure achievement of the desired results.

An important BMS tool used by MDOT to develop preservation policies is the Bridge Condition Forecasting System (BCFS). Working from current bridge conditions, bridge deterioration rates, project costs, expected inflation, and fix strategies, BCFS estimates the future condition of the state trunkline bridge system.

As shown in the chart below, MDOT has met and is projecting to sustain the non-freeway bridge goal of 85 percent good or fair condition.

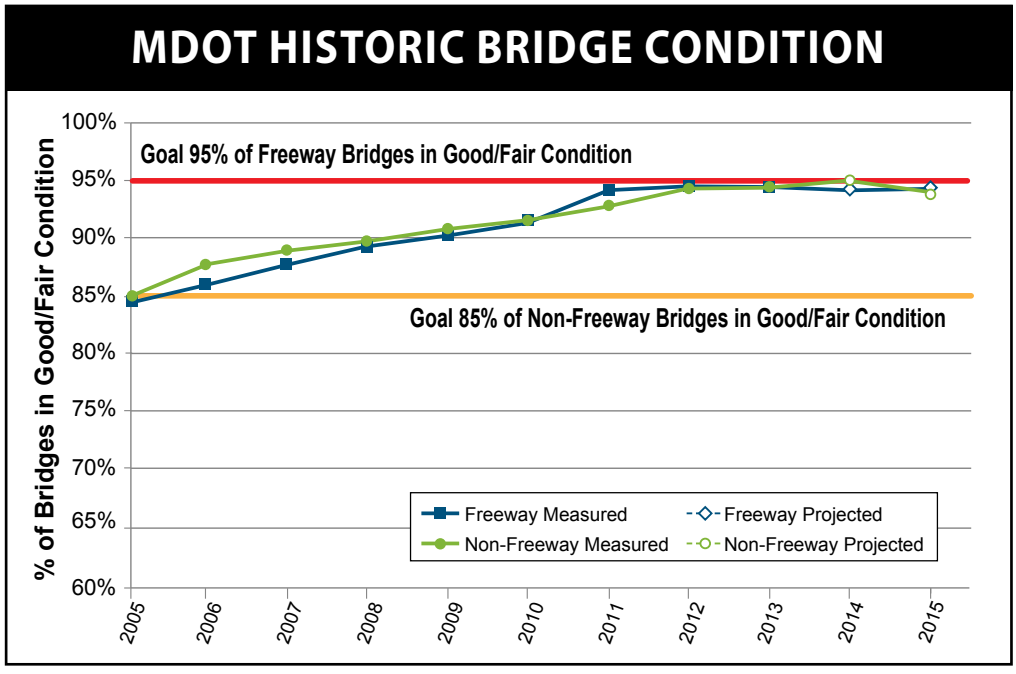
Projections show that Michigan peaked with a bridge condition close to 95 percent good or fair at the end of 2013 and declined slightly in 2014.

Safety Goals

MDOT's safety goal is to reduce fatalities and serious injuries on the state trunkline system in support of the Michigan Strategic Highway Safety Plan (SHSP) and the department's efforts of achieving the vision of Toward Zero Deaths (TZD).

To meet the department's safety goal, the strategy of the Safety Program is to select cost-effective safety improvements, as identified in the SHSP, to address trunkline locations with correctable fatality (K) and serious injury (A) crashes. Locations identified will support the key focus areas of the SHSP. The purpose of the SHSP is to identify key safety needs in the state and guide investment decisions that achieve significant reductions in highway fatalities and serious injuries. SHSP identifies four broad emphasis areas: high-risk behaviors, at-risk road users, engineering infrastructure, and system administration. Of these areas, engineering infrastructure is predominately addressed by the Safety Program through intersection safety and lane departure projects. In addition, pedestrian and bicycle safety improvements are the department's emphasis for at-risk road users.

Michigan's SHSP was adopted in December 2004 by the Governor's Traffic Safety Advisory Commission and endorsed by the governor in 2006. In 2013, the SHSP was revised to reflect current safety needs and goals. An emphasis on goals established an incremental reduction of the frequency of fatalities and serious injuries. The 2013 SHSP goals are to reduce traffic fatalities and serious injuries on all roadways from 889 and 5,706, respectively, in 2011 to 750 and 4,800, respectively, in 2016. In 2014, there were 876 fatalities and 4,909 serious injuries reported statewide.

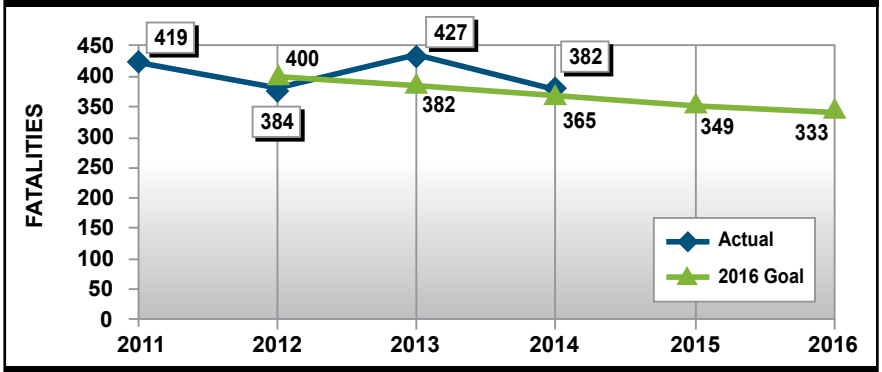


On the state trunkline system, the department's goal is to reduce fatalities and serious injuries from 419 and 2,286, respectively, in 2011 to no more than 333 and 1,700, respectively, in 2016. This equates to a 4.5 and 5.8 percent reduction per year, respectively. While this is the goal for 2016 on the state trunkline, MDOT's vision is TZD with the ultimate goal to reduce fatalities to zero and minimize serious injuries. The 2016 goal is an interim goal of that vision. In 2014, there were 382 fatalities and 2,084 serious injuries reported on the state trunkline system. Compared to 2013, fatalities decreased from 427, while serious injuries decreased from 2,262.

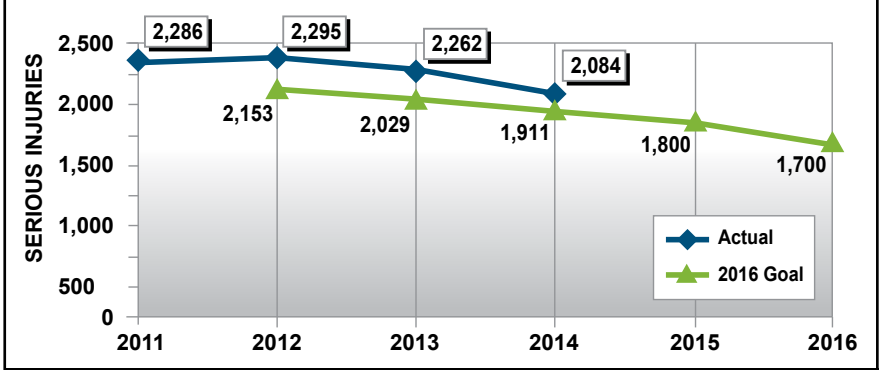
Adjacent are statewide and graphs that compare the actual values of fatalities and serious injuries compared to the 2016 interim goals.

To achieve this vision, MDOT has scheduled 81 safety projects for the FY 2016-2020 program consisting of intersection, lane departure, pedestrian and emergency services safety-related improvements, all specific action areas in the SHSP. Of these projects, 22 are low-cost safety improvements. Included in the safety improvements are the installation of cable median barrier along 26 miles of freeways, improved delineation, safety improvements to address wrong-way crashes on freeway ramps, six roundabouts, three pedestrian projects, and three projects to apply high friction surfaces. The remaining 59 safety projects, based on an existing crash pattern, will address 50 fatalities and 217 serious injuries during 2016-2020.

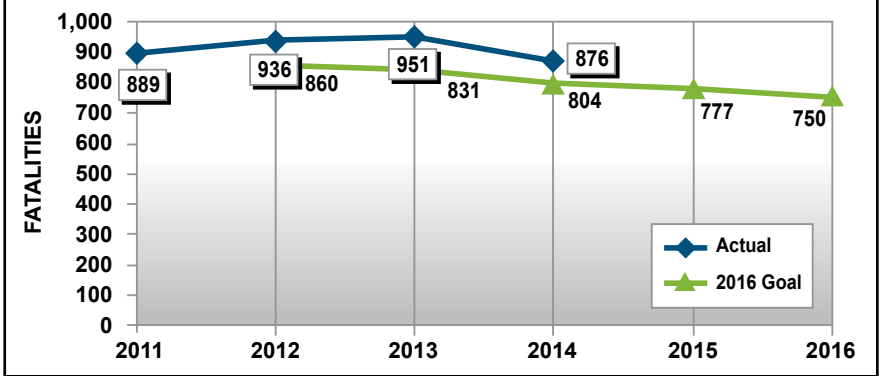
TRUNKLINE FATALITIES



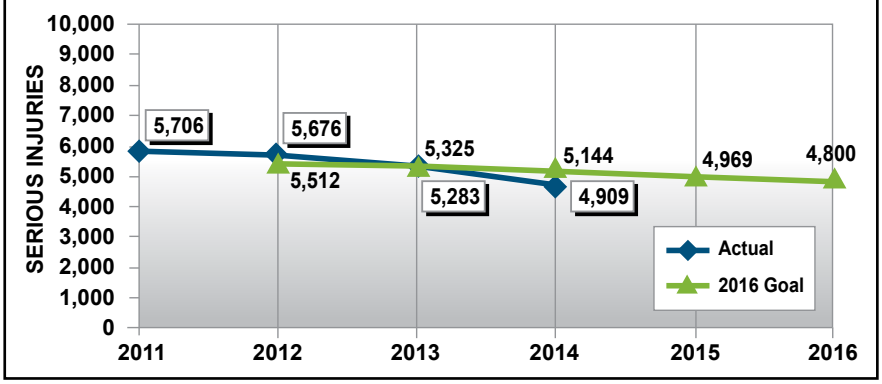
TRUNKLINE SERIOUS INJURIES



STATEWIDE FATALITIES



STATEWIDE SERIOUS INJURIES



Multi-Modal Performance Measures

Local Transit Performance Measures

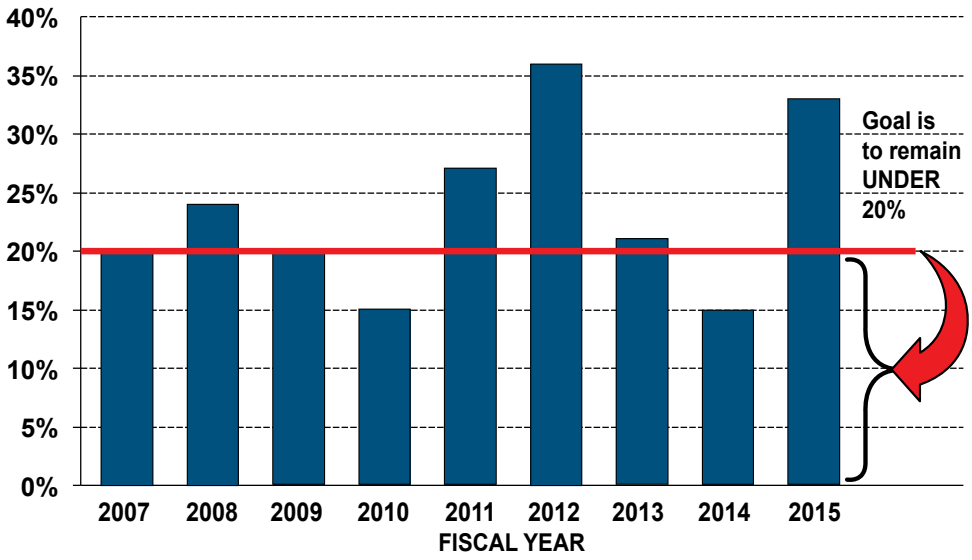
The OPT considers many factors when planning the investment strategy for local transit. Two primary performance measures considered are the condition of the rural transit fleet and the local transit level of service.

- The condition of the rural transit fleet is based on the percent of vehicles past their useful life. The goal is to have less than 20 percent of the rural fleet beyond useful life. That goal was achieved in 2014 due to a combination of federal State of Good Repair grants and the fact that fewer vehicles were eligible for replacement that year. Unfortunately, in 2015 the percentage went back up to 33 percent of the eligible fleet unfunded. Future success is dependent on the availability of increased state and federal funding.

The local transit level of service is measured using total annual hours and miles of service and total annual passenger trips (considering elderly/disabled passenger trips as a subset of the total). The goal is to preserve service levels and continue providing service in all 83 counties.

Service levels peaked in 2008 when gas prices soared, then started to return to lower levels as gas prices stabilized. For the last few years, service levels have decreased, especially in the Detroit area due to the economic issues facing the city. Service is still available in all 83 counties of the state. However, with the anticipated funding reduction in FY 2016 and beyond, there will likely be cuts to service at the local level either due to decreased operating assistance or the inability to replace buses that are no longer safe to operate.

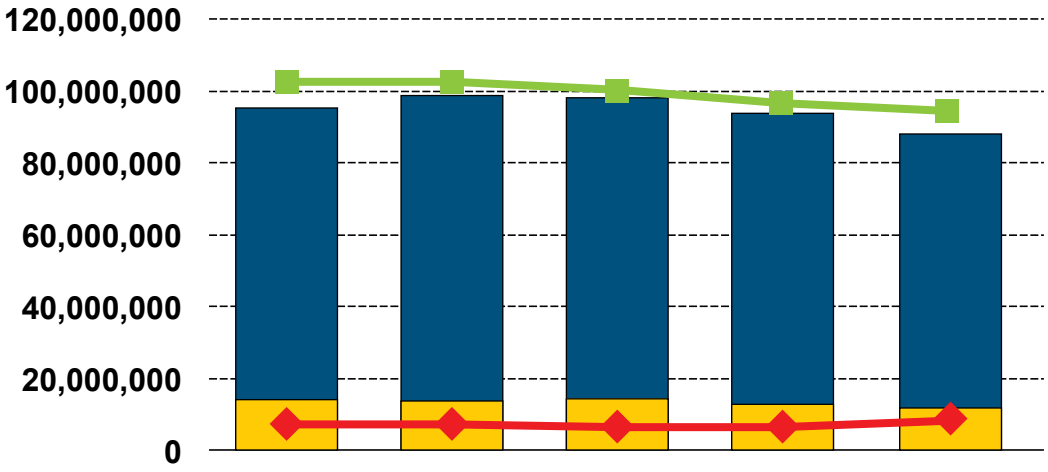
PERCENT OF RURAL AND SPECIALIZED TRANSIT VEHICLES PAST THEIR USEFUL LIFE*



Intercity Bus Performance Measure

The factor used to determine the investment strategy for intercity bus service is to provide reasonable access to intercity bus service in rural areas where connectivity to the national transportation network is often difficult to attain. MDOT's goal is to preserve the existing level of service, which has 81 percent of the rural population within 25 miles of an intercity bus stop. The national average is 78 percent.

LOCAL BUS TRANSIT LEVEL OF SERVICE INDICATORS



	2010	2011	2012	2013	2014
Passenger Trips Total (LBO excluding marine plus specialized sevice)	97,526,236	99,736,273	98,266,915	96,198,970	89,444,565
Elderly and Disabled Passenger Trips (as subset of Total)	12,909,367	12,690,839	13,287,228	12,587,813	12,269,803
Hours of Service	6,548,547	6,569,528	6,076,923	6,035,194	6,717,358
Miles of Service (only LBO SS not reported)	105,102,288	104,732,214	100,964,794	98,077,359	96,770,436

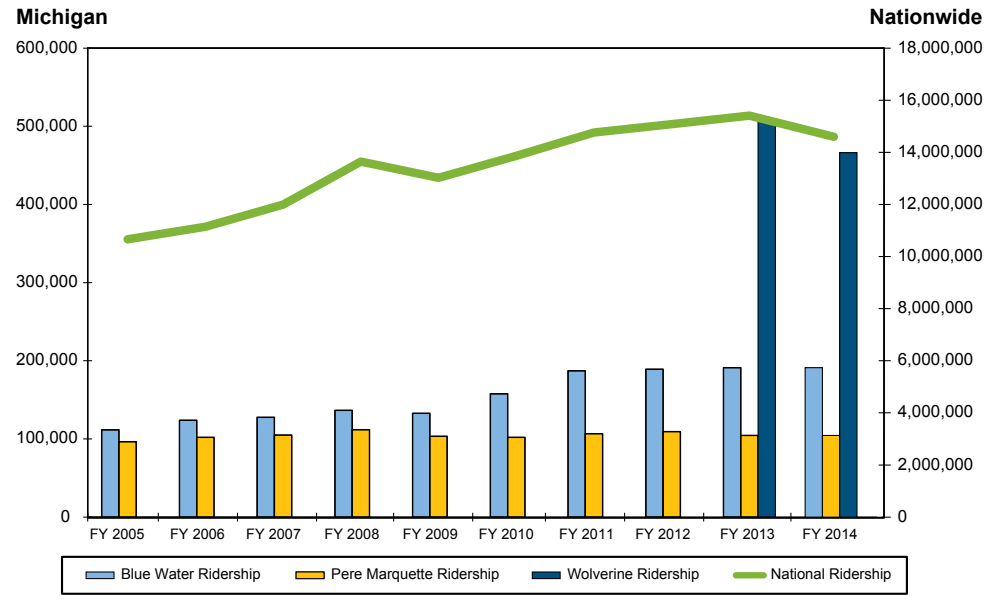
MDOT does not own or control local transit service levels, nor does it own or control the entire intercity bus network in Michigan. In addition, the state and federal funding that MDOT uses to support local transit and intercity bus is only a portion of the total cost of operating and maintaining the service. While MDOT has established performance measures for these modes to help guide its investment decisions, MDOT cannot - on its own - ensure that the performance measures are met.

Rail Performance Measures

Two rail-related goals are included in MDOT's performance measurement efforts.

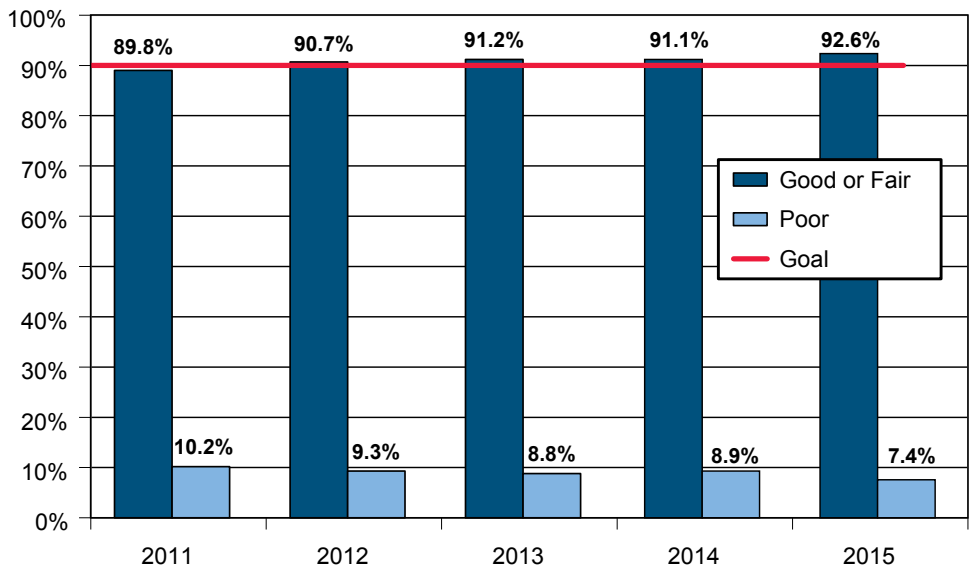
MDOT tracks the number of daily train miles and total number of passengers using state-supported passenger rail services, with a goal of maintaining ridership consistent with (within 10 percent) or better than national trends. MDOT is meeting its goal.

PASSENGER RAIL RIDERSHIP TRENDS MICHIGAN ROUTES AND AMTRAK NATIONWIDE

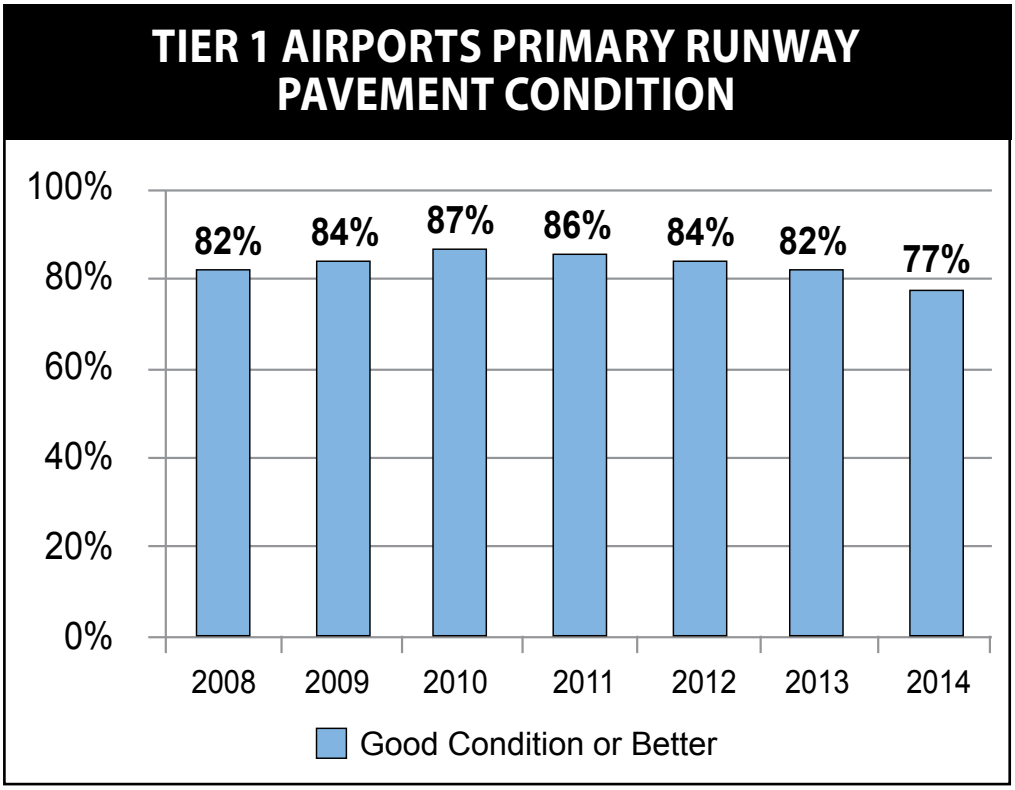


MDOT also tracks the railroad crossing surface condition on the state trunkline system, with a goal of at least 90 percent in good or fair condition. The percentage of the railroad crossing surfaces on the state trunkline system in at least fair condition has been increasing. As of FY 2015, 92.6 percent of the crossing surfaces were in good or fair condition.

TRUNKLINE HIGHWAY-RAILROAD GRADE CROSSING SURFACE CONDITIONS



Aviation Performance Measures



Note: 2014 decrease is due to a slight decline in overall pavement condition and revised evaluation methodology.

The Office of Aeronautics has made significant progress toward meeting its system planning goals related to providing access to air travel for Michigan residents. The primary performance measurement goal is to keep the pavement conditions at the Tier 1 airports' primary runways at a rating of good or better, according to Pavement Condition Index inspections. The goal is to have 100 percent of these pavements in good or better condition; the latest inspections show the system is at 77 percent. This is a reduction compared to prior years and it is anticipated the rate will continue to decline based on increasing and accelerating deterioration of pavements.

- Measure: Airport Pavement Condition Index
- Target: Maintain 100 percent of Tier 1 airport primary runways in good or better condition.

Pellston Airport, North Region

Transportation Funding Generates Michigan Jobs

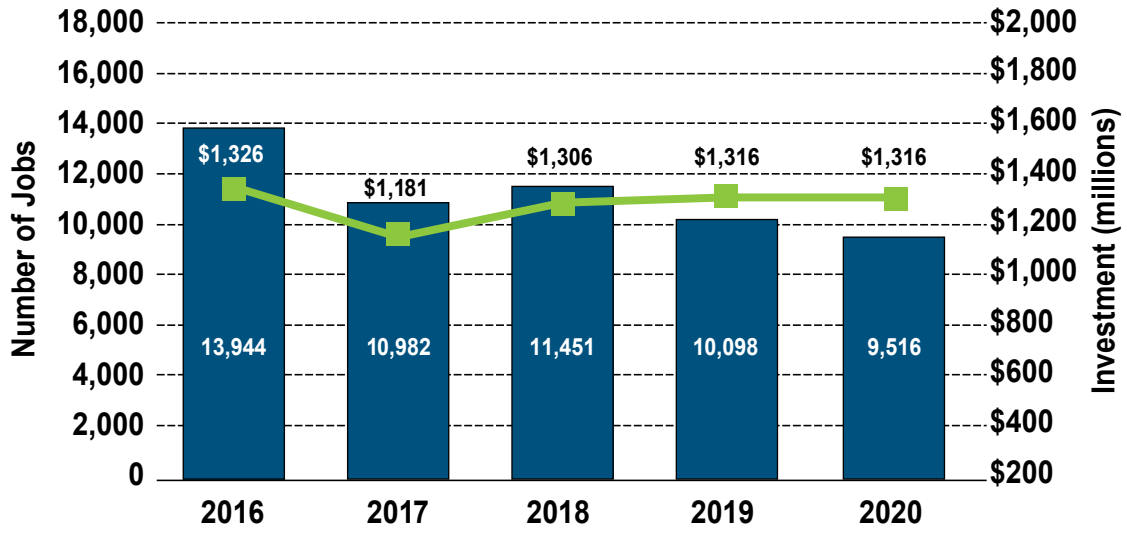
Highway Economic Impacts

Highway infrastructure investments are a vital part of the state's overall economic development strategy. An efficient highway system in good condition plays an integral role in supporting the economy of a state. In order to assess the economic impacts of the 2016-2020 Highway Program, including additional programming as a result of new road funding package, the Michigan Benefits Estimation System for Transportation Tool (MI BEST Tool) was used.

The MI BEST Tool is designed to estimate economic impacts for transportation investments like the Five-Year Transportation Program down to individual transportation projects. The economic model chosen to use for this analysis is the Regional Economic Models, Inc. (REMI) Policy Insight model.

The table and charts below show the employment impact of the 2016-2020 Highway Program for the state of Michigan. The resulting analysis is the total statewide economic impacts of the Highway Program.

EMPLOYMENT IMPACTS OF FY 2016-2020 HIGHWAY PROGRAM
Includes State Transportation Revenue Package



	2016	2017	2018	2019	2020
Investment (million $)	$1,326	$1,181	$1,306	$1,316	$1,316
Employment Impact (jobs)	13,944	10,982	11,451	10,098	9,516

Public Transportation Benefits

Local Transit

Transportation investments are a vital part of the state's overall economic development strategy. More than 90 million trips are made annually on local public transit in Michigan. While the direct benefits of transit to its users are clear, it can be shown that the overall benefits of these trips extend beyond transit riders. Through improved mobility, safety, air quality, and economic development, public transit also benefits users of the roadway network and the community at large. Many of these trips satisfy the mobility needs of numerous households for whom owning and driving a vehicle is not an effective or affordable transportation option. As a result, there are societal benefits that result from providing essential mobility.

In order to assess the economic impacts of the Public Transportation Program, MDOT staff used the REMI and the MI BEST Tool. The most recent assessment used FY 2015-2019 funding data. The resulting economic impacts reflect the statewide impacts of $1.3 billion in transit capital and operational spending called for in that Five-Year Transportation Program. This will support an average of 4,781 jobs annually, and add $1.908 billion in real personal income and $1.764 billion in gross state product in the five-year period. In this particular analysis, the spending impacts of capital investment and operations in public transportation in Michigan were considered, but the data was not available to estimate the economic benefits of travel efficiencies as is currently done for the MDOT Highway and Bridge Program.

Although this analysis attempts to assess the benefits of transit in a comprehensive manner, it does not account for the considerable additional benefits that can arise from rapid transit investments in urban areas. Therefore, the results of the model can be considered conservative. National models have shown that a dollar invested in light rail or rapid transit can return up to $6 in economic benefits, including local economic development around transit stops.

Rail Program Benefits

Michigan's rail system has approximately 3,600 miles of track, operated by 24 railroads. It carries about 19 percent of the state's freight tonnage. These commodities totaled more than $160 billion in 2013. Rail is particularly important for the movement of heavy and bulky commodities, as well as hazardous materials.

Growing healthy rail corridors is good for Michigan's economy, whether a corridor is specifically freight, passenger, or both. For the federally designated Chicago-Detroit/Pontiac accelerated rail corridor, MDOT will continue to improve the 135 miles of state-owned track between Kalamazoo and Dearborn. MDOT will have an opportunity to encourage and expand economic development along this corridor for both passenger and freight rail interests. In addition, when funding permits, MDOT will work with the Michigan Economic Development Corp., as well as the Michigan Department of Agriculture and Rural Development, to provide support to rail-reliant businesses throughout the state, most directly by helping provide access to the system through the Freight Economic Development Program.

Aviation Program Benefits

In order to maintain a competitive advantage in a global economic environment, access to convenient and efficient air travel is essential. While commercial airline services are often the most recognizable facet of aviation, the fact is that general aviation accounts for 97 percent of the nation's airports. These airports support a variety of aviation activities that employ thousands of people and create millions of dollars in economic impact and benefit.

Aviation, both commercial and general, is big business in Michigan.

- Aviation contributes more than $20 billion annually to Michigan's economy.
- Michigan airports serve more than 36 million passengers each year.
- Michigan airports move more than 500 million pounds of air cargo each year.
- Michigan is in the top 10 nationwide for the number of registered business aircraft.

Businesses throughout the state depend on airports for the movement of goods and personnel. Benefits associated with airports include direct and indirect jobs, wages, and expenditures. They also include the economic ripple effects in the community, enhancing economic activity far from the airport itself. In a state like Michigan, airports serve a vital role in supporting rural communities, particularly in the Upper Peninsula.

Economic benefits also include expenditures made by those transient passengers that use the airport, but spend money throughout the region. Airports also provide savings in time and money as a result of the travel efficiencies they create. In addition, economic benefits include the intangible effect an airport has on business decisions to locate or remain in a specific area. Finally, and somewhat less tangible, are quality of life benefits provided by an airport. Examples include police and firefighting support, search and rescue, recreation, emergency medical flights, on-demand charter services, and flight instruction for future pilots.

Whether through serving airline passengers at commercial service airports, accommodating corporate aviation at general aviation airports or enhancing quality of life for residents and businesses in Michigan, aviation remains one of the key links to continued and future prosperity. Airports are proven economic engines that promote growth and vitality through the fostering of opportunities for future economic development and the creation of jobs.

Regional Service Areas

Regional Service Areas create a framework within the state of Michigan for creating vibrant regional economies. Michigan's existing state, regional and local boundaries often had overlapping goals and competing priorities. With Regional Service Areas, MDOT reoriented their seven regional areas to Gov. Synder's common geographic boundaries that all state agencies will recognize and use. This initiative was intended to be a catalyst for the development of a local "economic vision." All state agencies can contribute to implementing a vision that is created locally, but transportation infrastructure provides the core for economic opportunities - making MDOT a significant part of this initiative.

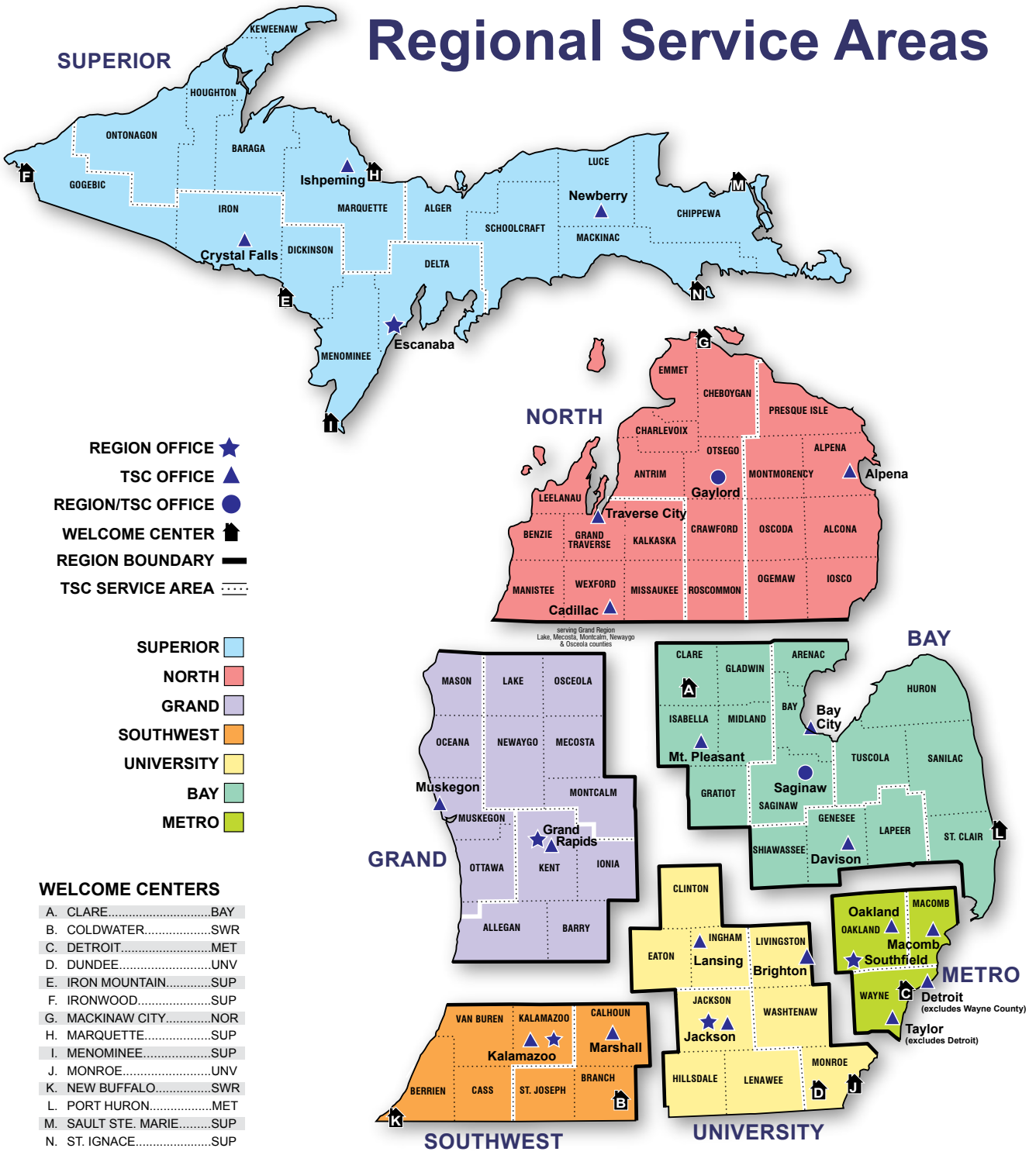
The MDOT Road and Bridge Project List, containing planned projects for the 2016-2020 time frame, are divided by Regional Service Area boundaries. The projects reflect MDOT efforts to coordinate road and bridge work, preserve the existing system, address safety needs, and make the most of anticipated revenues. The 2016-2020 Road and Bridge Project list does not include projects funded with additional state revenue package funding, reviewed on page 15, at this time.

To find your MDOT Regional Service Area, refer to the adjacent map and project lists. These projects also can be viewed on a state and regional maps on the MDOT website at ***http://mdotnetpublic.state.mi.us/fyp/***.

Culvert replacement on US-45, Baltimore River, Ontonagon County

MDOT
Michigan Department of Transportation

Regional Service Areas



BAY REGION

BRIDGE - PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ARENAC	US-23 (E Huron Rd)	B02, US-23 OVER AU GRES RIVER	OVERLAY - DEEP	0.182	CON				
BAY	I-75	I-75 SB OVER KAWKAWLIN RIVER	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 NB OVER KAWKAWLIN RIVER	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 SB OVER M-13 SB CONNECTOR	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 SB OVER WHEELER ROAD	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 SB OVER BEAVER ROAD	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 NB OVER WHEELER ROAD	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 NB OVER BEAVER ROAD	OVERLAY - DEEP	2.397				CON	
BAY	I-75	I-75 NB OVER M-13 SB CONNECTOR	OVERLAY - DEEP	2.397				CON	
CLARE	US-10	US-10 WB OVER US-127	OVERLAY - DEEP	0.027	CON				
CLARE	US-10	US-10 WB OVER M-115	OVERLAY - DEEP	0.361	CON				
CLARE	US-10	US-10 EB OVER M-115	OVERLAY - DEEP	0.361	CON				
CLARE	US-27	US-127 NB OVER TOWNLINE CREEK	OVERLAY - DEEP	1.567	CON				
CLARE	US-27	US-127 SB OVER TOWNLINE CREEK	OVERLAY - DEEP	1.567	CON				
GENESEE	I-475	I-475 OVER ATHERTON ROAD	OVERLAY - EPOXY	0.075	CON				
GENESEE	I-475	I-475 OVER LEFT TURN LANE NO 3	SUBSTRUCTURE REPAIR	0.075	CON				
ISABELLA	US-127	US-127 BR NB OVER US-127 SB - MT. PLEASANT	OVERLAY - EPOXY	0.380				CON	
ISABELLA	US-127	US-127 BR NB OVER US-127 SB - CLARE	OVERLAY - DEEP	0.380				CON	
SAGINAW	M-83 (S Main St)	M-83 OVER CASS RIVER	SUPERSTRUCTURE REPAIR, STEEL	0.271		CON			
SANILAC	M-53 AND M-19	M-53 OVER SOUTH BRANCH CASS RIVER	MISCELLANEOUS REHABILITATION	1.501	CON				
SANILAC	M-53 AND M-19	M-19 OVER SOUTH FORK CASS RIVER	MISCELLANEOUS REHABILITATION	1.501	CON				
				27.424					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ARENAC	US-23	MELITA ROAD OVER US-23	SUPERSTRUCTURE REPLACEMENT	0.031				CON	
BAY	I-75	WILDER ROAD OVER I-75	DECK REPLACEMENT	1.690				CON	
BAY	I-75	CHIP ROAD OVER I-75	DECK REPLACEMENT	1.690				CON	
BAY	I-75	MACKINAW ROAD OVER I-75	DECK REPLACEMENT	1.690				CON	
CLARE	US-10	US-10 OVER CHIPPEWA CREEK	BRIDGE REPLACEMENT	0.229	CON				
CLARE	US-10	US-10 EB OVER LITTLE TOBACCO DRAIN	CULVERT REPLACEMENT	0.488				CON	
GENESEE	I-475	HARVARD STREET WALKOVER OVER I-475	BRIDGE REMOVAL	0.435			CON		
GENESEE	I-69	LAPEER ROAD OVER I-69	DECK REPLACEMENT	0.248	CON				
GENESEE	I-69	I-69 EB OVER HAMMERBERG ROAD	WIDEN - MAINT LANES	0.339		CON			
GENESEE	I-69	I-69 WB OVER HAMMERBERG ROAD	WIDEN - MAINT LANES	0.339		CON			
GENESEE	M-15 (State Road)	M-15 OVER PADDISON CO DRAIN	CULVERT REPLACEMENT	0.308	CON				
GLADWIN	M-30	M-30 OVER NO NAME DRAIN	CULVERT REPLACEMENT	0.218	CON				
GRATIOT	M-57 (West Cleveland Road)	M-57 OVER BRADLO DRAIN	CULVERT REPLACEMENT	0.963	CON				
MIDLAND	M-20 (East Isabella Road)	M-20 OVER TITABAWASSEE RIVER AND CSX RR (ABNDN)	BRIDGE REPLACEMENT	1.036			CON		
SAGINAW	I-75	I-75 NB OVER KOCHVILLE DRAIN	DECK REPLACEMENT	0.621	CON				
SAGINAW	I-75	I-75 SB OVER KOCHVILLE DRAIN	DECK REPLACEMENT	0.621	CON				
SAGINAW	I-75	CRANE ROAD OVER I-75	BRIDGE REMOVAL	0.238	CON				

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

BAY REGION

BRIDGE REPLACEMENT - *continued*

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
SAGINAW	M-57 (East Broad Street)	M-57 OVER SHIAWASSEE RIVER	BRIDGE REPLACEMENT	0.120	CON				
SAGINAW	M-57 (West Broad Street)	M-57 OVER BRANCH OF DEER CREEK	CULVERT REPLACEMENT	0.131	CON				
SAGINAW	M-81 (East Washington Road)	M-81 OVER WEAVER DRAIN	CULVERT REPLACEMENT	0.871	CON				
SANILAC	M-46 (West Sanilac Road)	M-46 OVER MIDDLE BRANCH OF CASS RIVER	CULVERT REPLACEMENT	0.002	CON				
ST. CLAIR	M-25	M-25 OVER HOWE DRAIN	SUPERSTRUCTURE REPLACEMENT	0.184			CON		
				12.492					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ARENAC	I-75	BAY/ARENAC COUNTY LINE TO US-23	RESURFACE	2.409	CON				
BAY	I-75	COTTAGE GROVE ROAD TO LINWOOD ROAD	RESTORATION AND REHABILITATION	1.801		CON			
BAY	I-75	M-13 CONNECTOR TO BEAVER ROAD	RESTORATION AND REHABILITATION	4.541				CON	
BAY	M-13 (Bay City Rd)	ZILWAUKEE BRIDGE TO BAY CITY SOUTH CITY LIMITS	RESURFACE	6.268		CON			
BAY	M-13 (Huron Rd)	NORTH ST TO BAY/ARENAC COUNTY LINE	RESURFACE	3.335				CON	
CLARE	US-10	US-127 TO LEATON ROAD	RESTORATION AND REHABILITATION	3.241				CON	
GENESEE	I-475	SAGINAW STREET TO CLIO ROAD	RECONSTRUCTION	1.401			CON		
GENESEE	I-475	CARPENTER RD TO SAGINAW ST	RECONSTRUCTION	1.788			CON		
GENESEE	I-69	BALLENGER HIGHWAY TO FENTON ROAD	RECONSTRUCTION	1.556		CON			
GENESEE	M-54 (Dort Hwy)	COLDWATER ROAD TO MT. MORRIS ROAD	RESURFACE	2.027				CON	
GRATIOT	US-127	WASHINGTON ROAD TO VAN BUREN ROAD	RESURFACE	5.492	CON				
GRATIOT	US-127	VAN BUREN ROAD TO BEGOLE ROAD	RESTORATION AND REHABILITATION	3.000		CON			
ISABELLA	US-10	LEATON ROAD BRIDGE TO MIDLAND/ISABELLA COUNTY LINE	RESTORATION AND REHABILITATION	5.805			CON		
SAGINAW	I-75	I-675 NORTH JUNCTION TO 200 FEET NORTH OF CRANE RD	RECONSTRUCTION	0.838	CON				
SAGINAW	I-75 (S I-75)	HESS TO SOUTH I-675 INTERCHANGE	MAJOR WIDENING	2.551					CON
SAGINAW	M-46 (Gratiot Rd)	WEST LIMITS OF MERRILL TO BRENNAN ROAD	RESURFACE	4.785			CON		
SAGINAW	M-46 (Gratiot Road)	BRENNAN ROAD TO M-52	RESURFACE	5.975		CON			
SAGINAW	M-57 (W Brady Rd)	SAGINAW/GRATIOT COUNTY LINE TO M-52	RESTORATION AND REHABILITATION	10.194				CON	
SANILAC	M-46 AND M-25	M-46 AND M-25 IN PORT SANILAC	RECONSTRUCTION	1.076				CON	
ST. CLAIR	M-29	GREEN STREET / MAIN STREET TO PALMS ROAD	RESURFACE	5.406	CON				
TUSCOLA	M-25 (Bay City Forestville Road)	BAY PARK ROAD TO THE HURON COUNTY LINE	RESURFACE	3.911	CON				
TUSCOLA	M-46 (Sanilac Road)	VASSAR ROAD TO SHERIDAN ROAD	RESURFACE	4.939	CON				
				82.339					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

GRAND

BRIDGE - BIG BRIDGE PROGRAM

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
KENT	I-196	I-196 WB OVER GRAND RIVER, US-131, LOCAL STREETS	OVERLAY - DEEP	0.070	CON				
				0.070					

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
IONIA	I-96	M-66 NB OVER I-96	OVERLAY - SHALLOW	0.002	CON				
IONIA	I-96	M-66 SB OVER I-96	OVERLAY - SHALLOW	0.002	CON				
KENT	I-196	I-196 WB RAMP TO M-11 OVER I-196 EB	OVERLAY - DEEP	0.001	CON				
KENT	I-96	MORSE LAKE AVENUE OVER I-96	OVERLAY - SHALLOW	0.982	CON				
KENT	I-96	I-96 EB OVER GRAND RIVER	OVERLAY - DEEP	0.383			CON		
KENT	I-96	I-96 WB OVER GRAND RIVER	OVERLAY - DEEP	0.383			CON		
KENT	I-96 EB	I-196 WB & M-21 OVER I-96 EB	OVERLAY - DEEP	0.300			CON		
KENT	US-131	I-196 BS (FRANKLIN) OVER US-131,I-196 BS & CSX RR	SUBSTRUCTURE REPLACEMENT	0.130	CON				
KENT	US-131	US-131 RAMP B M-21 OVER VACANT LAND	SUBSTRUCTURE PATCHING	0.130	CON				
KENT	US-131	US-131 RAMP A M-21 OVER VACANT LAND	SUBSTRUCTURE PATCHING	0.130	CON				
KENT	US-131	US-131 SB & M-46 WB OVER CEDAR SPRINGS AVENUE	OVERLAY - DEEP	0.226			CON		
KENT	US-131	US-131 NB & M-46 EB OVER CEDAR SPRINGS AVENUE	OVERLAY - DEEP	0.226			CON		
KENT	US-131 NB	US-131 NB OVER WHITE CREEK AVENUE	OVERLAY - DEEP	0.277		CON			
KENT	US-131 SB	US-131 SB OVER WHITE CREEK AVENUE	OVERLAY - DEEP	0.436		CON			
MUSKEGON	US-31	PONTALUNA ROAD OVER US-31	OVERLAY - SHALLOW	0.160	CON				
MUSKEGON	US-31	US-31 SB OVER MUSKEGON RIVER	BRIDGE APPROACH	1.679		CON			
MUSKEGON	US-31	US-31 SB OVER NORTH CHANNEL OF THE MUSKEGON RIVER	SUBSTRUCTURE REPLACEMENT	1.679		CON			
MUSKEGON	US-31	US-31 NB OVER NORTH CHANNEL OF THE MUSKEGON RIVER	SUBSTRUCTURE REPAIR	1.679		CON			
OTTAWA	I-196 BL	I-196 BL EB OVER BRANCH OF BLACK RIVER	OVERLAY - DEEP	0.330					CON
OTTAWA	I-196 BL	I-196 BL WB OVER BRANCH OF BLACK RIVER	OVERLAY - DEEP	0.330					CON
OTTAWA	I-96	I-96 EB OVER CROCKERY CREEK	OVERLAY - DEEP	1.035			CON		
OTTAWA	I-96	I-96 WB OVER CROCKERY CREEK	OVERLAY - DEEP	1.035			CON		
OTTAWA	US-31	US-31 NB OVER BLACK RIVER	OVERLAY - DEEP	0.344	CON				
OTTAWA	US-31	US-31 SB OVER BLACK RIVER	OVERLAY - DEEP	0.035	CON				
OTTAWA	US-31	US-31 SB OVER I-96 BL	OVERLAY - DEEP	0.035	CON				
				6.320					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ALLEGAN	I-196 AND US-31 SB	I-196 / US-31 SB OVER KUIPERS DRAIN	CULVERT REPLACEMENT	0.804				CON	
ALLEGAN	M-89	M-89 OVER KALAMAZOO RIVER OVERFLOW	SUPERSTRUCTURE REPLACEMENT	1.504			CON		
BARRY	M-66	M-66 OVER QUAKER BROOK	BRIDGE REPLACEMENT	0.092				CON	
IONIA	I-96	CUTLER ROAD OVER I-96	BRIDGE REPLACEMENT	0.604				CON	
KENT	I-196	I-196 M-21 WB OVER PLYMOUTH RD	BRIDGE REPLACEMENT	0.326			CON		
KENT	I-196 WB	I-196 WB OVER GRAND R, I-296, SCRIBNER & TURNER	WIDEN - ADD LANES	0.070	CON				
KENT	I-96	CHENEY AVENUE OVER I-96	DECK REPLACEMENT	0.000	CON				

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

GRAND

BRIDGE REPLACEMENT - *continued*

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OCEANA	US-31 BR (Polk Road)	US-31BR (POLK ROAD) OVER RUSSELL CREEK	CULVERT REPLACEMENT	0.492				CON	
				0.562					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ALLEGAN	I-196	SB ONLY 130TH AVENUE NORTH TO US-31	RECONSTRUCTION	7.375				CON	
ALLEGAN	M-40	FROM 134TH AVE TO REIMINK STREET	RECONSTRUCTION	1.754			CON		
ALLEGAN	M-40	FROM CABILL DRIVE TO NORTH OF 52ND STREET	TRAFFIC OPERATIONS OR SAFETY WORK	1.494	CON				
IONIA	M-21 (Lincoln Avenue)	WALL STREET EAST TO M-66 (E JCT)	RESURFACE	1.047		CON			
IONIA	M-66 (State Road)	M-50 NORTH TO PORTLAND ROAD	RESURFACE	8.000				CON	
KENT	I-196 (Gerald R Ford Freeway)	FULLER AVE TO I-96	RECONSTRUCTION	2.051			CON		
KENT	I-196 (Gerald R Ford Freeway)	I-196 (EB) OVER PLYMOUTH AVENUE	BRIDGE REPLACEMENT	2.051			CON		
KENT	I-196 (WB) OFF RAMP TO M-11	I-196 (WB) OFF-RAMP TO M-11	RECONSTRUCTION	0.000	CON				
KENT	I-96	WEST RIVER DRIVE TO THE GRAND RIVER	RECONSTRUCTION	0.472			CON		
KENT	I-96	THORNAPPLE RIVER DRIVE EAST TO WHITNEYVILLE ROAD	TRAFFIC OPERATIONS OR SAFETY WORK	2.734				CON	
KENT	M-21 (Main Street)	VALLEY VISTA DRIVE EAST TO KENT/IONIA COUNTY LINE	RESURFACE	2.298	CON				
KENT	M-44 (Belding Road)	WOLVERINE BLVD EAST TO BLAKELY DR	RECONSTRUCTION	1.044		CON			
KENT	US-131 NB	10 MILE ROAD TO M-46 (S JUNCTION)	RECONSTRUCTION	7.422			CON		
KENT	US-131 SB	10 MILE ROAD TO M-46	RECONSTRUCTION	7.403		CON			
MASON	US-31	US-10 TO SUGAR GROVE ROAD	RESTORATION AND REHABILITATION	16.695				CON	
MECOSTA	US-131 (NB)	6 MILE ROAD NORTH TO 13 MILE ROAD	RESTORATION AND REHABILITATION	7.391	CON				
MONTCALM	M-46 (Howard City - Edmore Rd)	M-66 TO SECOND STREET	RESTORATION AND REHABILITATION	2.003		CON			
MONTCALM	M-91 (Greenville Road)	PECK ROAD NORTH TO COLBY ROAD	RESURFACE	3.490					CON
MONTCALM	US-131	M-46 TO MONTCALM N CO LINE	RESTORATION AND REHABILITATION	3.425	CON				
MUSKEGON	M-120 (Holton Road)	WHITEHALL RD EAST TO MID-MICHIGAN RR	RESTORATION AND REHABILITATION	0.696		CON			
MUSKEGON	M-120 (Holton Road)	MID-MICHIGAN RR EAST TO GETTY STREET	RESTORATION AND REHABILITATION	1.203				CON	
MUSKEGON	US-31 BR (Colby Street)	HALL STREET TO THE WHITE RIVER	RESURFACE	1.234		CON			
NEWAYGO	M-37 (Maple Street)	COMMERCE STREET TO STATE STREET	RESURFACE	0.332			CON		
NEWAYGO	M-37 (State Road)	M-82 (S JUNCTION) NORTH TO THE MUSKEGON RIVER	RESURFACE	1.541			CON		
OCEANA	US-31	FRUITVALE ROAD NORTH TO WINSTON ROAD	RESURFACE	5.366	CON				
OCEANA	US-31	OCEANA/MASON CO LINE NORTH TO MEISENHEIMER ROAD	RESURFACE	4.560					CON
OTTAWA	I-196	32ND AVENUE EAST TO OTTAWA/KENT COUNTY LINE	RECONSTRUCTION	4.996				CON	
OTTAWA	I-196 WB	32ND AVENUE EAST TO OTTAWA/KENT COUNTY LINE	TRAFFIC OPERATIONS OR SAFETY WORK	4.868			CON		
OTTAWA	US-31	8TH ST TO LAKEWOOD BLVD	RECONSTRUCTION	1.188	CON				
OTTAWA	US-31	LAKEWOOD BOULEVARD TO QUINCY STREET	RECONSTRUCTION	2.898	CON				
				107.031					

CAPACITY IMPROVEMENT

US-31, HOLLAND TO GRAND HAVEN

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OTTAWA	US-31	LAKEWOOD BOULEVARD NORTH TO QUINCY STREET	RECONSTRUCT AND ADD LANE(S) OVER	2.898	CON	CON			
OTTAWA	US-31	LAKEWOOD BOULEVARD NORTH TO QUINCY STREET	RECONSTRUCT AND ADD LANE(S) OVER		PE				
OTTAWA	US-31	US-31 OVER BARRMAN DRAIN	CULVERT REPLACEMENT		PE-B				
OTTAWA	US-31	LAKEWOOD BLVD NORTH TO QUINCY ST	MAINTENANCE OF TRAFFIC	2.898	CON	CON			
				5.796					

NEW ROADS

US-31, HOLLAND TO GRAND HAVEN

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OTTAWA	M-231	M-45 TO LITTLE ROBINSON CREEK	NEW ROUTES	4.476	CON				
OTTAWA	M-231	M-45 TO LITTLE ROBINSON CREEK	NEW ROUTES		UTL				
OTTAWA	M-231	OVER THE GRAND RIVER (RIVER SPAN)	NEW STRUCTURE ON NEW ROUTE	0.000	CON				
OTTAWA	M-231	OVER THE GRAND RIVER (APPROACH SPANS)	NEW STRUCTURE ON NEW ROUTE	1.328	CON				
OTTAWA	M-231	OVER RICH STREET	NEW STRUCTURE ON NEW ROUTE	3.960	CON				
OTTAWA	M-231	OVER BUCHANAN STREET	NEW STRUCTURE ON NEW ROUTE	3.960	CON				
OTTAWA	M-231	OVER SLEEPER STREET	NEW STRUCTURE ON NEW ROUTE	3.960	CON				
				17.684					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

METRO

BRIDGE - BIG BRIDGE PROGRAM

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OAKLAND	I-696	PLAZA OVER I-696, IN SOUTHFIELD	DRAIN SYSTEM CLEAN/REPAIR	0.276	CON				
OAKLAND	I-696	PLAZA OVER I-696, IN OAK PARK	DRAIN SYSTEM CLEAN/REPAIR	0.276	CON				
OAKLAND	I-696	PLAZA & CHURCH STREET OVER I-696 IN OAK PARK	DRAIN SYSTEM CLEAN/REPAIR	0.189	CON				
WAYNE	I-75	I-75 OVER ROUGE RIVER, DEARBORN STREET AND RR	DECK REPLACEMENT	0.080		CON			
WAYNE	I-75	I-75 NB OFF RAMP OVER ROUGE RIV, RR, MAINT RD	DECK REPLACEMENT	0.080		CON			
WAYNE	I-75	I-75 SB ON RAMP OVER ROUGE RIVER AND PLEASANT ST	DECK REPLACEMENT	0.080		CON			
WAYNE	I-75	I-75 OVER FORT STREET	DECK REPLACEMENT	0.369		CON			
				0.914					

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
MACOMB	M-53	M-53 SB OVER CLINTON RIVER	OVERLAY - DEEP	0.372			CON		
MACOMB	M-53	M-53 NB OVER CLINTON RIVER	OVERLAY - SHALLOW	0.372			CON		
OAKLAND	I-696	I-696 OVER I-96 & I-275	OVERLAY - DEEP	0.028	CON				
OAKLAND	M-10 (W 10 Mile Rd)	MOUNT VERNON STREET OVER M-10	OVERLAY - SHALLOW	1.130					CON
OAKLAND	M-10 (W 10 Mile Rd)	EVERGREEN ROAD NB OVER M-10	OVERLAY - SHALLOW	1.130					CON
OAKLAND	M-10 (W 10 Mile Rd)	EVERGREEN ROAD SB OVER M-10	OVERLAY - SHALLOW	1.130					CON
OAKLAND	M-10 (W 10 Mile Rd)	10 MI ROAD OVER M-10	SUPERSTRUCTURE REPAIR, STEEL	1.130					CON
OAKLAND	M-5	I-96 BL (GRAND RIVER) OVER M-5	OVERLAY - DEEP	0.000			CON		
WAYNE	CALVERT OVER M-10 (Calvert)	CALVERT AVENUE OVER M-10	SUPERSTRUCTURE REPAIR, STEEL	0.049		CON			
WAYNE	CHAREST OVER M-8 (Charest)	CHAREST AVENUE WALKOVER OVER M-8	SUBSTRUCTURE REPAIR	0.068		CON			
WAYNE	I-75	I-75 NB OVER ALLEN RD	SUPERSTRUCTURE REPAIR, STEEL	0.205			CON		
WAYNE	I-75	I-75 SB OVER ALLEN RD	SUPERSTRUCTURE REPAIR, STEEL	0.205			CON		
WAYNE	I-94	CSX RAILROAD OVER I-94	SUBSTRUCTURE REPAIR	0.000			CON		
WAYNE	I-94	CONRAIL OVER I-94	SUBSTRUCTURE REPAIR	0.000			CON		
WAYNE	I-94	GTW AND CONRAIL OVER I-94	PAINTING COMPLETE	0.000			CON		
WAYNE	I-94	I-94 WB OVER WAYNE ROAD	SUBSTRUCTURE REPAIR	0.070			CON		
WAYNE	I-94	I-94 EB RAMP TO M-10 OVER I-94 WB & M-10 SB	OVERLAY - SHALLOW	0.000			CON		
WAYNE	M-10 N / I-75 S CD RAMP	M-10 N TO I-75 S RAMP OVER M-10	OVERLAY - DEEP	0.079		CON			
WAYNE	M-153	M-153 WB OVER ROUGE RIVER	PIN & HANGER REPLACEMENT	0.098					CON
WAYNE	M-153	M-153 EB OVER ROUGE RIVER	OVERLAY - SHALLOW	0.098					CON
WAYNE	US-24	US-24 NB OVER ROUGE RIVER	OVERLAY - EPOXY	0.170				CON	
WAYNE	US-24	US-24 SB OVER ROUGE RIVER	OVERLAY - EPOXY	0.170				CON	
				2.269					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
WAYNE	I-75	I-75 EAST-NORTH RAMP OVER M-10	DECK REPLACEMENT	0.214		CON			
WAYNE	I-75 (US-24 Connector)	I-75 SB OVER US-24 CONN	DECK REPLACEMENT	9.359			CON		
WAYNE	I-75 (US-24 Connector)	I-75 NB OVER EUREKA RD	DECK REPLACEMENT	9.359			CON		
WAYNE	I-75 (US-24 Connector)	I-75 SB OVER EUREKA RD	DECK REPLACEMENT	9.359			CON		
WAYNE	I-75 (US-24 Connector)	I-75 NB OVER NORTH LINE RD	DECK REPLACEMENT	9.359			CON		

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

METRO

BRIDGE REPLACEMENT - *continued*

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
WAYNE	I-75 (US-24 Connector)	I-75 SB OVER NORTH LINE RD	DECK REPLACEMENT	9.359			CON		
WAYNE	I-75	I-75 NB OVER GODDARD ROAD, SEXTON-KILFOIL DRAIN	DECK REPLACEMENT	2.029				CON	
WAYNE	I-75	I-75 SB OVER GODDARD ROAD, SEXTON-KILFOIL DRAIN	DECK REPLACEMENT	2.029				CON	
WAYNE	I-94	I-94 WB OVER ECORSE ROAD	BRIDGE REPLACEMENT	0.375			CON		
WAYNE	I-96	CHERRYLAWN PEDESTRIAN STRUCTURE OVER I-96	DECK REPLACEMENT	0.311	CON				
WAYNE	M-10 (John C Lodge Fwy)	M L KING (STIMSON) OVER M-10	SUPERSTRUCTURE REPLACEMENT	0.111			CON		
WAYNE	M-14 OLD	OLD M-14 OVER MIDDLE ROUGE RIVER	BRIDGE REPLACEMENT	0.139		CON			
WAYNE	M-14 OLD	HINES DRIVE OVER OLD M-14 (ANN ARBOR ROAD)	BRIDGE REPLACEMENT	0.139		CON			
WAYNE	M-39	SAWYER AVENUE WALKOVER OVER M-39	BRIDGE REPLACEMENT	1.682		CON			
WAYNE	M-39	GLENDALE WALKOVER OVER M-39	BRIDGE REMOVAL	1.682		CON			
WAYNE	M-39	CSX RAILROAD OVER M-39	PAINTING COMPLETE	1.682		CON			
WAYNE	M-39	VERNE STREET WALKOVER OVER M-39	BRIDGE REPLACEMENT	1.682		CON			
WAYNE	M-39	TOURNIER AVENUE WALKOVER OVER M-39	BRIDGE REMOVAL	1.682		CON			
WAYNE	M-39	VASSAR AVENUE WALKOVER OVER M-39	BRIDGE REPLACEMENT	1.682		CON			
WAYNE	M-85	M-85 OVER MICHIGAN CENTRAL RAILROAD (ABANDONED)	CULVERT REPLACEMENT	0.070	CON				
WAYNE	S I 75/WARREN RAMP	I-75 SB EXIT RAMP OVER I-75 E&W TO SB TURN RDWY	DECK REPLACEMENT	0.000			CON		
WAYNE	US-24 (Telegraph Rd)	US-24 NB OVER FRANK & POET DRAIN	BRIDGE REPLACEMENT	0.060			CON		
				14.489					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
MACOMB	M-59 (Hall Rd)	M-53 TO HAYES ROAD	RECONSTRUCTION	1.807		CON			
OAKLAND	I-96	FROM NORTHOF 5 MILE ROAD TO I-696/I-96 INTERCHANGE	RESTORATION AND REHABILITATION	12.994	CON				
OAKLAND	M-24	HARMON ROAD TO GOLDENGATE AVENUE	RESURFACE	4.989	CON				
WAYNE	I-75 NB (Walter P Chrysler Fwy)	N OF CANFIELD STREET TO S OF PIQUETTE STREET (NB)	RESURFACE	0.999		CON			
WAYNE	M-14 OLD	NEWBURGH ROAD TO MARKET STREET	RECONSTRUCTION	0.393		CON			
				21.182					

NEW ROADS

GORDIE HOWE INTERNATIONAL BRIDGE

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - PLAZA	NEW ROUTES		ROW	ROW	ROW	ROW	ROW
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - PLAZA	NEW ROUTES		PE	PE	PE	PE	PE
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - INTERCHANGE	NEW ROUTES		ROW	ROW	ROW	ROW	ROW
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - INTERCHANGE	NEW ROUTES		PE	PE	PE	PE	PE
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - BRIDGE	NEW ROUTES		ROW	ROW	ROW	ROW	ROW
WAYNE	GORDIE HOWE INTERNATIONAL BRIDGE	GORDIE HOWE INTERNATIONAL BRIDGE - BRIDGE	NEW ROUTES		PE	PE	PE	PE	PE
				0.000					

TRUNKLINE MODERNIZATION

I-75, FROM M-59 TO 8 MILE ROAD

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OAKLAND	I-75	FROM NORTH OF COOLIDGE ROAD TO SOUTH BOULEVARD	RECONSTRUCT AND ADD LANE(S) OVER	3.084	CON	CON	CON		
OAKLAND	I-75	FROM NORTH OF COOLIDGE ROAD TO SOUTH BOULEVARD	RECONSTRUCT AND ADD LANE(S) OVER		PE	PE			
OAKLAND	I-75	FROM 8 MILE TO M-59, OAKLAND COUNTY	PROJECT MANAGEMENT CONTRACT		EPE	EPE	EPE	EPE	EPE
OAKLAND	I-75	FROM 8 MILE TO M-59, OAKLAND COUNTY	REAL ESTATE ACTIVITIES		ROW	ROW	ROW	ROW	
OAKLAND	I-75	FROM NORTH OF WATTLES ROAD TO NORTH OF COOLIDGE R	MAJOR REHABILITATION	1.582					CON

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

METRO

TRUNKLINE MODERNIZATION - *continued*

I-75, FROM M-59 TO 8 MILE ROAD

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
OAKLAND	I-75	FROM NORTH OF WATTLES ROAD TO NORTH OF COOLIDGE R	MAJOR REHABILITATION				PE	PE	PE
OAKLAND	I-75	FROM NORTH OF I-696 TO SOUTH OF 12 MILE	MAJOR REHABILITATION	1.970			CON	CON	CON
OAKLAND	I-75	FROM NORTH OF I-696 TO SOUTH OF 12 MILE	MAJOR REHABILITATION		PE	PE	PE		
OAKLAND	I-75	FROM NORTH OF ROCHESTER RD TO NORTH OF WATTLES RD	MAJOR REHABILITATION						PE

TRUNKLINE MODERNIZATION

I-94, I-96 TO EAST OF CONNER AVENUE IN DETROIT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
WAYNE	I-94 (Ford Freeway)	VAN DYKE (M-53) OVER I-94 IN THE CITY OF DETROIT	BRIDGE REPLACEMENT		UTL				
WAYNE	I-94 (Ford Freeway)	M-3 OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.001		CON	CON	CON	CON
WAYNE	I-94 (Ford Freeway)	FROM I-96 TO EAST OF CONNER AVENUE	GENERAL MISCELLANEOUS						EPE
WAYNE	I-94 (Ford Freeway)	M-3 OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL				
WAYNE	I-94 (Ford Freeway)	CHENE STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.339		CON	CON		
WAYNE	I-94 (Ford Freeway)	CHENE STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	CHENE STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	CHENE STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	SECOND AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.074		CON	CON		
WAYNE	I-94 (Ford Freeway)	SECOND AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	SECOND AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	SECOND AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	SECOND AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL	UTL			
WAYNE	I-94 (Ford Freeway)	CADILLAC AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT	0.010		CON	CON		
WAYNE	I-94 (Ford Freeway)	CADILLAC AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	CADILLAC AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	CADILLAC AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	CADILLAC AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL				
WAYNE	I-94 (Ford Freeway)	FRENCH RD OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.189			CON	CON	
WAYNE	I-94 (Ford Freeway)	FRENCH RD OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	FRENCH RD OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	FRENCH ROAD OVER I-94	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	FRENCH RD OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL				
WAYNE	I-94 (Ford Freeway)	CONCORD AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.129			CON	CON	
WAYNE	I-94 (Ford Freeway)	CONCORD AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW	ROW			
WAYNE	I-94 (Ford Freeway)	CONCORD AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE				
WAYNE	I-94 (Ford Freeway)	CONCORD AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL	UTL			
WAYNE	I-94 (Ford Freeway)	MOUNT ELLIOT STREET OVER I-94, WAYNE COUNITY	BRIDGE REPLACEMENT	0.074		CON	CON		
WAYNE	I-94 (Ford Freeway)	MOUNT ELLIOT STREET OVER I-94, WAYNE COUNITY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	MOUNT ELLIOT STREET OVER I-94, WAYNE COUNITY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	MOUNT ELLIOT STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	MOUNT ELLIOT STREET OVER I-94, WAYNE COUNITY	BRIDGE REPLACEMENT		UTL	UTL			
WAYNE	I-94 (Ford Freeway)	CASS AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT	0.130		CON	CON		
WAYNE	I-94 (Ford Freeway)	CASS AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW				
WAYNE	I-94 (Ford Freeway)	CASS AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	CASS AVENUE OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE-B	PE-B			
WAYNE	I-94 (Ford Freeway)	CASS AVENUE, DETROIT, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL	UTL			
WAYNE	I-94 (Ford Freeway)	BRUSH STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT	0.138			CON	CON	
WAYNE	I-94 (Ford Freeway)	BRUSH STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		ROW	ROW			
WAYNE	I-94 (Ford Freeway)	BRUSH STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		PE	PE			
WAYNE	I-94 (Ford Freeway)	BRUSH STREET OVER I-94	BRIDGE REPLACEMENT		PE-B				
WAYNE	I-94 (Ford Freeway)	BRUSH STREET OVER I-94, WAYNE COUNTY	BRIDGE REPLACEMENT		UTL	UTL			
WAYNE	M-1 (Woodward Ave)	WOODWARD AVENUE (M-1) OVER I-94	BRIDGE REPLACEMENT	0.073	CON	CON			
WAYNE	I-94 (Ford Freeway)	I-96 TO CONNER AVENUE, WAYNE COUNTY	PROJECT MANAGEMENT CONTRACT		EPE	EPE	EPE		
WAYNE	I-94 (Ford Freeway)	FROM I-96 TO EAST OF CONNER AVENUE	PROJECT MANAGEMENT CONTRACT		EPE	EPE	EPE	EPE	

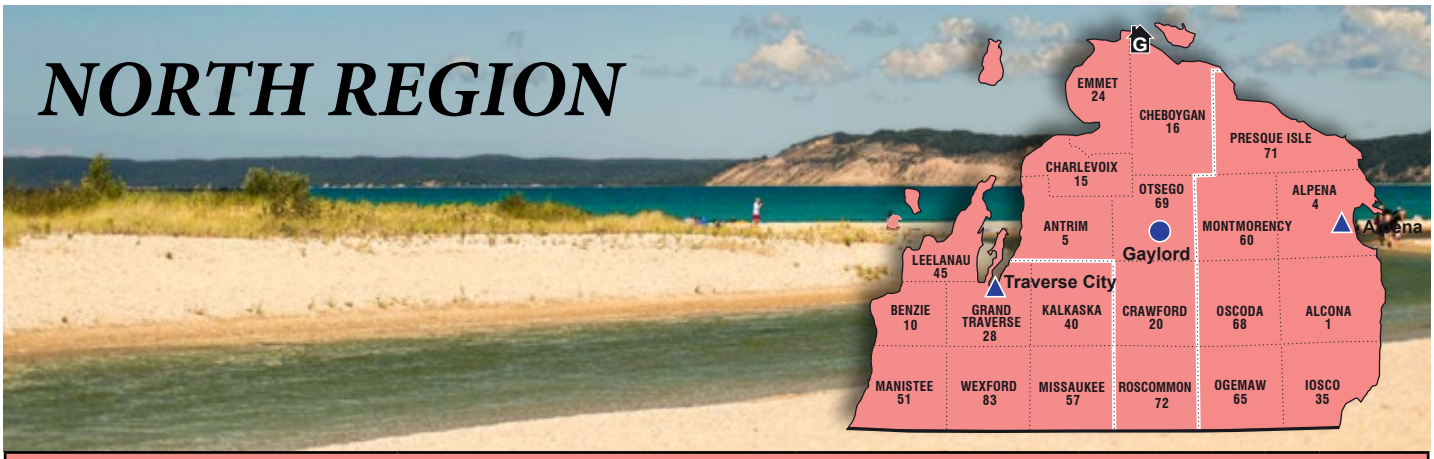
EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

METRO

TRUNKLINE MODERNIZATION - *continued*

I-94, I-96 TO EAST OF CONNER AVENUE IN DETROIT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
WAYNE	I-94 (Ford Freeway)	FROM I-96 TO EAST OF CONNER AVENUE	REAL ESTATE ACTIVITIES		ROW				
WAYNE	I-94 (Ford Freeway)	FROM I-96 TO EAST OF CONNER AVENUE	REAL ESTATE ACTIVITIES			ROW			
WAYNE	I-94 (Ford Freeway)	FROM CONNER AVENUE TO CHENE STREET	RECONSTRUCT AND ADD LANE(S) OVER	7.598				CON	
WAYNE	I-94 (Ford Freeway)	FROM CONNER AVENUE TO CHENE STREET	RECONSTRUCT AND ADD LANE(S) OVER				ROW		
WAYNE	I-94 (Ford Freeway)	FROM CONNER AVENUE TO CHENE STREET	RECONSTRUCT AND ADD LANE(S) OVER				PE	PE	PE
WAYNE	I-94 (Ford Freeway)	FROM I-96 TO CONNER AVENUE, CITY OF DETROIT	BRIDGE REPLACEMENT		PE	PE	PE		
				15.391					



NORTH

BRIDGE - BIG BRIDGE PROGRAM

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
CHARLEVOIX	US-31	US-31 OVER ISLAND LAKE OUTLET	SUPERSTRUCTURE REPAIR, STEEL	0.072	CON				
CHEBOYGAN	US-23	US-23 OVER CHEBOYGAN RIVER	SUPERSTRUCTURE REPAIR, STEEL	0.097	CON				
				0.169					

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
GRAND TRAVERSE	US-31	US-31 OVER BOARDMAN RIVER	OVERLAY - DEEP	0.271		CON			
ROSCOMMON	I-75	M-18 OVER I-75	OVERLAY - DEEP	0.360			CON		
				0.631					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ROSCOMMON	M-18	M-18 OVER BACKUS CREEK	CULVERT REPLACEMENT	2.145				CON	
				2.145					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ANTRIM	US-131	NORTH JUNCTION OF M-32 TO SOUTH OF BOYNE FALLS	RECONSTRUCTION	6.397	CON				
BENZIE	M-115	FROM US-31 WEST APPROX. 2.4 MILES	RECONSTRUCTION	2.381	CON				
BENZIE	M-115	FROM BRIDGE STREET EAST 4 MILES	RESTORATION AND REHABILITATION	4.109	CON				
BENZIE	US-31	M-115 SOUTH TO THE BETSIE RIVER	RECONSTRUCTION	1.416					CON
CHEBOYGAN	M-33	FROM LONG LAKE RD TO M-27	RESTORATION AND REHABILITATION	6.283	CON				
CRAWFORD	M-72	KALKASKA/CRAWFORD COUNTY LINE TO M-93	RESTORATION AND REHABILITATION	6.048		CON			
EMMET	US-31	FROM DOUGLAS LAKE ROAD TO E LEVERING ROAD	RESTORATION AND REHABILITATION	4.190		CON			
EMMET	US-31	FROM LIBERTY STREET TO ROSEDALE AVENUE	RECONSTRUCTION	1.339			CON		
GRAND TRAVERSE	M-113	N OF M-186 SOUTH TO US-131	RESTORATION AND REHABILITATION	5.088	CON				
IOSCO	US-23 (Huron Road)	TAWAS BEACH ROAD TO KIRKLAND DRIVE	RECONSTRUCTION	5.628		CON			
KALKASKA	M-72	GRAND TRAVERSE COUNTY LINE EAST TO KALKASKA ROAD	RESTORATION AND REHABILITATION	7.731			CON		
MANISTEE	M-55	CLAYBANK RD TO UDELL HILLS RD	RESTORATION AND REHABILITATION	7.640					CON
MISSAUKEE	M-66/55	JENNINGS ROAD TO 1ST STREET	RECONSTRUCTION	1.382	CON				
MONTMORENCY	M-32	JEROME STREET TO HAAS ROAD	RESTORATION AND REHABILITATION	3.381					CON
OGEMAW	I-75 NB	FROM OGEMAW COUNTY LINE NORTHERLY TO COOK ROAD	RESTORATION AND REHABILITATION	6.487				CON	
OGEMAW	I-75 SB	FROM OGEMAW COUNTY LINE NORTHERLY TO COOK ROAD	RESTORATION AND REHABILITATION	6.332					CON
OGEMAW	M-55/I-75 BL	FROM GRAY ROAD TO GREEN ROAD	RECONSTRUCTION	1.066	CON				
OSCODA	M-33	POPPS ROAD TO EAST OF THE M-33/M-72 JCT	RESTORATION AND REHABILITATION	6.719				CON	
WEXFORD	US-131 OLD	S OF US-131 S CROSSING TO M-42	RECONSTRUCTION	5.726			CON		
				89.343					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

SOUTHWEST

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
BERRIEN	I-94	LAPORTE ROAD OVER I-94	OVERLAY - DEEP	1.511			CON		
BERRIEN	I-94	KRUGER ROAD OVER I-94	OVERLAY - DEEP	1.511			CON		
BERRIEN	I-94	LAKESIDE ROAD OVER I-94	OVERLAY - DEEP	1.511			CON		
BERRIEN	I-94	CLEVELAND AVENUE OVER I-94	OVERLAY - DEEP	0.385				CON	
BERRIEN	I-94 EB AND WB	I-94 EB OVER PUETZ ROAD	OVERLAY - DEEP	1.477	CON				
BERRIEN	I-94 EB AND WB	I-94 WB OVER PUETZ ROAD	SUBSTRUCTURE REPAIR	1.477	CON				
BERRIEN	I-94 EB AND WB	I-94 EB OVER CSX RAIL ROAD SPUR (ABANDONED)	OVERLAY - DEEP	1.508	CON				
BERRIEN	I-94 EB AND WB	I-94 WB OVER CSX RAIL ROAD SPUR (ABANDONED)	OVERLAY - DEEP	1.508	CON				
KALAMAZOO	I-94	9TH STREET OVER I-94	BRIDGE BARRIER RAILING REPLACE	0.040			CON		
				4.921					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
BERRIEN	I-196	M-63 OVER I-196	BRIDGE REPLACEMENT	0.300			CON		
BRANCH	US-12	US-12 OVER MICHIGAN SOUTHERN RAILROAD	BRIDGE REMOVAL	0.587			CON		
CALHOUN	M-311	M-311 (11 MILE ROAD) OVER KALAMAZOO RIVER	BRIDGE REPLACEMENT	0.499				CON	
KALAMAZOO	I-94	I-94 OVER EAST MICHIGAN AVENUE (40TH STREET)	BRIDGE REPLACEMENT	1.028	CON				
KALAMAZOO	US-131	US-131 NB OVER AMTRAK & KL AVE	DECK REPLACEMENT	0.000				CON	
KALAMAZOO	US-131	US-131 SB OVER AMTRAK & KL AVE	DECK REPLACEMENT	0.000				CON	
ST. JOSEPH	M-66	M-66 OVER NYC RR (ABANDONED)	BRIDGE REMOVAL	0.648			CON		
ST. JOSEPH	M-86	M-86 OVER PRAIRIE RIVER	BRIDGE REPLACEMENT	0.999	CON				
VAN BUREN	BLUE STAR HIGHWAY	BLUE STAR HIGHWAY OVER BLACK RIVER	SUPERSTRUCTURE REPLACEMENT	0.001	CON				
				4.062					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
BERRIEN	I -94 EB	WATERVLIET TOWNSHIP	ROADSIDE FACILITIES - IMPROVE	0.000					CON
BERRIEN	I-196	I-94 TO NORTH OF M-63 (EXIT 7)	RESURFACE	8.089			CON		
BERRIEN	I-94	RED ARROW HIGHWAY (EXIT 16) TO I-94 BL (EXIT 23)	RESURFACE	7.360	CON				
BERRIEN	I-94	FROM RED ARROW HWY (EXIT 16) TO I-94BL (EXIT 23)	RESURFACE	5.736		CON			
BERRIEN	I-94	STATE LINE TO M-239	RESURFACE	1.466			CON		
BERRIEN	I-94 EB	M-140 TO VAN BUREN COUNTY LINE	RECONSTRUCTION	3.421	CON				
BERRIEN	US-12	BAKERTOWN ROAD TO THE START OF THE DIVIDED SECTION	RESURFACE	3.316	CON				
BRANCH	M-60	DEPOT STREET TO CALHOUN COUNTY LINE	RESURFACE	11.387		CON			
CALHOUN	I-94	17 1/2 TO 21 1/2 MILE ROAD	RESURFACE	4.445		CON			
CALHOUN	I-94	I-94 EB OVER RICE CREEK	HEALER SEALER	4.445		CON			
CALHOUN	I-94	I-94 WB OVER RICE CREEK	HEALER SEALER	4.445		CON			
CALHOUN	M-199	MICHIGAN AVENUE TO I-94	RESURFACE	1.255					CON
CALHOUN	M-311 (11 Mile Rd)	M-60 TO I-94 BL	RESTORATION AND REHABILITATION	13.432				CON	

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

SOUTHWEST

REPAIR AND REBUILD ROADS- *continued*

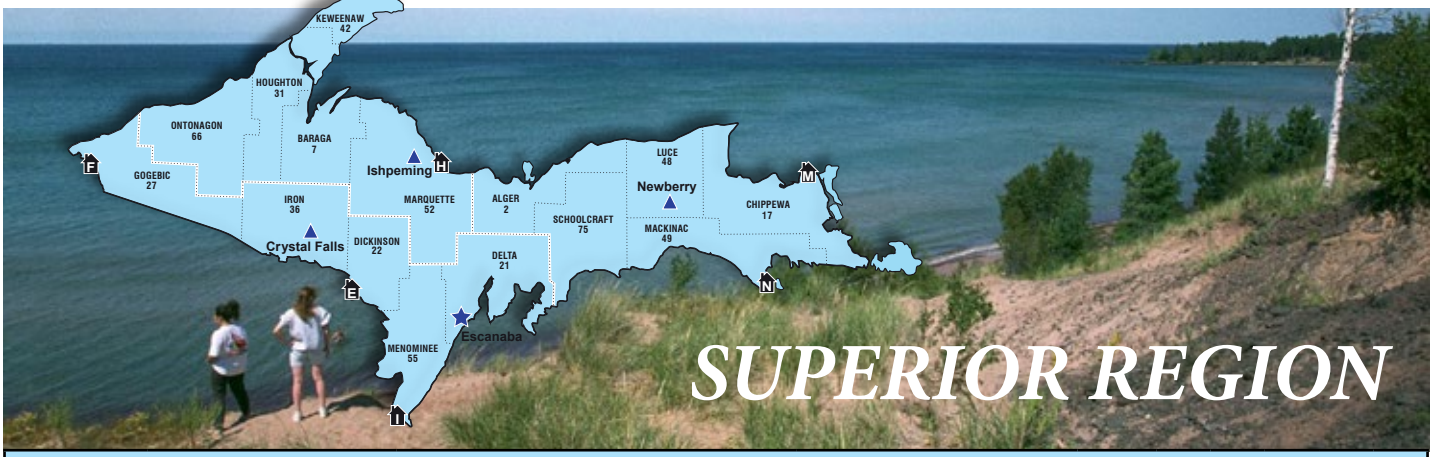
COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
CALHOUN	M-99 (Superior Street)	ASH STREET TO VINE STREET, ALBION	RECONSTRUCTION	0.374	CON				
CASS	M-40	ONE MILE SOUTH OF M-60	RECONSTRUCTION	0.500			CON		
KALAMAZOO	I-94	EAST OF LOVERS LANE TO EAST OF PORTAGE ROAD	MAJOR WIDENING	1.160					CON
KALAMAZOO	I-94	I-94 OVER PORTAGE ROAD	REPLACE BRIDGE, ADD LANES	1.160					CON
KALAMAZOO	I-94	KILGORE ROAD OVER I-94	REPLACE BRIDGE, ADD LANES	1.160					CON
KALAMAZOO	I-94	PORTAGE ROAD TO SPRINKLE ROAD	MAJOR WIDENING	1.200					CON
KALAMAZOO	I-94	I-94 OVER OLMSTEAD CREEK	REPLACE BRIDGE, ADD LANES	1.200					CON
KALAMAZOO	I-94	I-94 OVER NORFOLK SOUTHERN	REPLACE BRIDGE, ADD LANES	1.200					CON
KALAMAZOO	I-94	I-94 EB OVER GTW RAILROAD	REPLACE BRIDGE, ADD LANES	1.200					CON
KALAMAZOO	I-94	I-94 WB OVER GTW RAILROAD	REPLACE BRIDGE, ADD LANES	1.200					CON
KALAMAZOO	I-94	AT E MICHIGAN AVENUE (40TH STREET)	RECONSTRUCTION	0.941	CON				
KALAMAZOO	I-94 BL (Stadium Drive)	AT HOWARD STREET INTERSECTION	TRAFFIC OPERATIONS OR SAFETY WORK	0.556			CON		
KALAMAZOO	I-94BL	EAST OF SENECA TO HOWARD	RESURFACE	2.762			CON		
ST. JOSEPH	US-131	FROM BROADWAY ROAD TO COON HOLLOW ROAD	RECONSTRUCTION	1.169		CON			
VAN BUREN	I-94	W. OF LAWRENCE (CR 365) EASTERLY FOR 3.39 MILES	RESURFACE	4.453		CON			
VAN BUREN	M-140	CITY OF WATERVLIET TO CR 378	RESURFACE	7.218	CON				
				80.240					

CAPACITY IMPROVEMENT

I-94 IN KALAMAZOO

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
KALAMAZOO	I-94	EAST OF OAKLAND DRIVE TO WEST OF SPRINKLE ROAD	RECONSTRUCT AND ADD LANE(S) OVER		ROW	ROW	ROW	ROW	ROW
				0.000					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction



SUPERIOR

BRIDGE - SPECIAL NEEDS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
GOGEBIC	M-28	M-28 OVER PRESQUE ISLE RIVER	SUBSTRUCTURE REPAIR	1.009	CON				
				1.009					

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
DICKINSON	US-8	US-8 OVER MENOMINEE RIVER	OVERLAY - DEEP	0.343			CON		
				0.343					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
DELTA	US-2	US-2, US-41 OVER ESCANABA RIVER	BRIDGE REPLACEMENT	0.357		CON			
DELTA	US-2	E&LS RAILROAD OVER US-2	BRIDGE REPLACEMENT	0.357		CON			
MACKINAC	US-2	US-2 OVER BREVORT RIVER	DECK REPLACEMENT	5.617			CON		
MENOMINEE	US-2	US-2 OVER BIG CEDAR RIVER	DECK REPLACEMENT	0.722				CON	
ONTONAGON	M-28	M-28 OVER BALTIMORE RIVER	DECK REPLACEMENT	1.000					CON
ONTONAGON	M-64	M-64 OVER FLOODWOOD RIVER	DECK REPLACEMENT	0.588				CON	
				8.641					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
ALGER	M-28	FROM 0.86 MI E OF FFR 2275 TO 0.13 MI E. OF MUNAVE	RESURFACE	4.339					CON
BARAGA	US-41	FROM OLD US-41 NORTH TO THE HOUGHTON COUNTY LINE	RESTORATION AND REHABILITATION	6.946			CON		
BARAGA	US-41	US-41, COVINGTON AND SPUR TOWNSHIPS, BARAGA COUNTY	RESTORATION AND REHABILITATION	9.633					CON
CHIPPEWA	I-75 BS (Ashmun St)	FROM I-75/3 MILE RAMPS TO M-129	RECONSTRUCTION	1.739			CON		
CHIPPEWA	I-75BS	FROM 15TH ST TO 10TH STREET	RESURFACE	0.443			CON		
CHIPPEWA	M-123	M-123 OVER BLACK CREEK	RESTORATION AND REHABILITATION	0.200	CON				
DELTA	US-2 (US-2)	WESTBOUND US-2 BETWEEN GLADSTONE AND RAPID RIVER	RESURFACE	5.521			CON		
DICKINSON	US-2	FROM DAWN'S LAKE ROAD TO BALER ROAD	RECONSTRUCTION	1.978	CON				
HOUGHTON	US-41	FROM THE LIFT BRIDGE TO LINCOLN DRIVE, HANCOCK	RECONSTRUCTION	0.929	CON				
IRON	US-2	FROM OSS ROAD EAST TO CRYSTAL FALLS	RESURFACE	5.165		CON			
IRON	US-2	US-2 OVER FORTUNE LAKE OUTLET	DECK PATCHING	5.165		CON			
IRON	US-2	FROM BATES-AMASA ROAD TO EAST LAKE EMILY ROAD	RESURFACE	3.098	CON				
IRON	US-2	ANGELI'S PLAZA EASTERLY TO BATES-AMASA ROAD	RESURFACE	3.490				CON	
LUCE	M-123	FROM M-28 TO SOUTH OF TRUMAN STREET, NEWBERRY	FLEXIBLE & COMPOSITE PAVEMENTS - CP	3.665	CON				
MACKINAC	I-75 BL	FROM GRONDEN ROAD TO MACKINAC TRAIL	RECONSTRUCTION	1.108		CON			
MACKINAC	US-2	W. OF MARTIN LAKE ROAD TO W. OF I-75	RESURFACE	4.385	CON				
MACKINAC	US-2	FROM EAST LIMITS OF NAUBINWAY TO BORGSTROM ROAD	RESTORATION AND REHABILITATION	5.409				CON	

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

SUPERIOR

REPAIR AND REBUILD ROADS- *continued*

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
MARQUETTE	US-41	FROM IROQUOIS STREET TO WATER STREET IN NEGAUNEE	RECONSTRUCTION	1.630		CON			
MARQUETTE	US-41	FROM CR HQ TO WEST OF BRICKYARD ROAD, MARQUETTE	RECONSTRUCTION	1.000				CON	
				65.843					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

UNIVERSITY

BRIDGE PRESERVATION

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
EATON	I-69	AINGER ROAD OVER I-69	OVERLAY - DEEP	0.348				CON	
				0.348					

BRIDGE REPLACEMENT

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
JACKSON	I-94	I-94 OVER CONRAIL AND GRAND RIVER	BRIDGE REPLACEMENT	0.404			CON		
JACKSON	I-94	M-106 NB OVER I-94	BRIDGE REPLACEMENT	0.204			CON		
JACKSON	I-94	M-106 SB OVER I-94	BRIDGE REPLACEMENT	0.204			CON		
JACKSON	M-60	M-60 EB OVER I-94	BRIDGE REPLACEMENT	0.267					CON
JACKSON	M-60	M-60 WB OVER I-94	BRIDGE REPLACEMENT	0.267					CON
MONROE	I-75 (I-75)	I-75 NB OVER HALFWAY CREEK	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 SB OVER HALFWAY CREEK	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 NB OVER BAY CREEK	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 SB OVER BAY CREEK	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 NB OVER POWER CO RR SPUR	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 SB OVER POWER CO RR SPUR	BRIDGE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 NB OVER BAY CREEK ROAD	SUPERSTRUCTURE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	I-75 SB OVER BAY CREEK ROAD	SUPERSTRUCTURE REPLACEMENT	4.596				CON	
MONROE	I-75 (I-75)	ERIE ROAD OVER I-75	BRIDGE REPLACEMENT	4.596				CON	
MONROE	US-23	SUMMERFIELD ROAD OVER US-23	BRIDGE REPLACEMENT	0.210	CON				
WASHTENAW	US-23	NORTH TERRITORIAL ROAD OVER US-23	BRIDGE REPLACEMENT	0.605	CON				
WASHTENAW	US-23	6 MILE ROAD OVER US-23	BRIDGE REPLACEMENT	0.605	CON				
WASHTENAW	US-23	8 MILE ROAD OVER US-23	BRIDGE REPLACEMENT	0.605	CON				
WASHTENAW	US-23	US-23 OVER HORSESHOE LAKE DRAIN	WIDEN - MAINT LANES	0.554	CON				
WASHTENAW	US-23	US-23 NB OVER MDOT RR	BRIDGE REPLACEMENT	0.554	CON				
WASHTENAW	US-23	US-23 SB OVER MDOT RR	BRIDGE REPLACEMENT	0.554	CON				
WASHTENAW	US-23	US-23 NB OVER BARKER ROAD	WIDEN - MAINT LANES	0.554	CON				
WASHTENAW	US-23	US-23 SB OVER BARKER ROAD	WIDEN - MAINT LANES	0.554	CON				
				6.840					

REPAIR AND REBUILD ROADS

COUNTY	ROUTE (COMMON NAME)	LOCATION	TYPE OF WORK	LENGTH	2016	2017	2018	2019	2020
JACKSON	I-94	M-60 TO SARGENT ROAD	RECONSTRUCTION	8.925			CON		
JACKSON	I-94 BL (Washington)	BROWN TO LOUIS GLICK	RECONSTRUCTION	1.701	CON				
JACKSON	M-50/US-127BR (West Avenue)	MICHIGAN TO WILDWOOD & GANSON TO NORTH	RECONSTRUCTION	0.479	CON				
JACKSON	M-60	EMERSON RD TO RENFREW RD	RESTORATION AND REHABILITATION	2.528		CON			
JACKSON	M-60	CHAPEL ROAD TO EMERSON ROAD	RESURFACE	1.567		CON			
MONROE	I-75	I-75 FROM OHIO STATE LINE TO ERIE ROAD	RECONSTRUCTION	5.060				CON	
WASHTENAW	US-12 (East Michigan Avenue)	US-12 FROM B01 TO MAPLE ROAD	RECONSTRUCTION	0.940	CON				
WASHTENAW	US-23 (NB US-23)	US-23 FROM M-14 TO M-36	ITS APPLICATIONS	11.147	CON				
				32.347					

EPE= Study/Environmental PE=Preliminary Engineering/Design PE-B=Preliminary Engineering/Design for Bridges
UTL=Utility work ROW=Right of way/Real Estate CON=Construction

MDOT Region Contact Information

Bay Region Office

5859 Sherman Road
Saginaw, MI 48604
Phone: 989-754-7443
Fax: 989-754-8122
Robert Ranck, Region Engineer

Grand Region Office

1420 Front Ave., N.W.
Grand Rapids, MI 49504
Phone: 616-451-3091
Toll-free: 888-815-6368
Fax: 616-451-0707
Roger Safford, Region Engineer

Metro Region Office

18101 W. Nine Mile Road
Southfield, MI 48075
Phone: 248-483-5100
Fax: 248-569-3103
Tony Kratofil, Region Engineer

North Region Office

1088 M-32 East
Gaylord, MI 49735
Phone: 989-731-5090
Toll-free: 888-304-6368
Fax: 989-731-0536
Scott Thayer, Region Engineer

Southwest Region Office

1501 Kilgore Road
Kalamazoo, MI 49001
Phone: 269-337-3900
Toll-free: 866-535-6368
Fax: 269-337-3916
Kimberly Avery, Region Engineer

Superior Region Office

1818 Third Ave. North
Escanaba, MI 49829
Phone: 906-786-1800
Toll-free: 888-414-6368
Fax: 906-789-9775
Randy VanPortfliet, Region Engineer

University Region Office

4701 W. Michigan Ave.
Jackson, MI 49201
Phone: 517-750-0401
Fax: 517-750-4397
Paul Ajegba, Region Engineer

Acronyms

ACIP	Aviation Capital Improvement Program
ATM	Active Traffic Management
BRT	Bus Rapid Transit
CMAQ	Congestion Mitigation Air Quality
CTF	Comprehensive Transportation Fund
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HTF	Highway Trust Fund
MAP-21	Moving Ahead for Progress in the 21st Century
MPO	Metropolitan Planning Organization
MTF	Michigan Transportation Fund
RSL	Remaining Service Life
RTA	Regional Transportation Authority of Southeast Michigan
SHSP	Strategic Highway Safety Plan
STF	State Trunkline Fund
STIP	State Transportation Improvement Program
TIP	Transportation Improvement Program

MICHIGAN DEPARTMENT OF TRANSPORTATION

2016-2020 FIVE-YEAR TRANSPORTATION PROGRAM

VOLUME XVIII

Preliminary Draft:
(Subject to Change)
December 10, 2015

MDOT
Michigan Department of Transportation

Providing the highest quality integrated transportation services for economic benefit and improved quality of life.